SAXIFRAGËARUM ENUMERATIO.

AUTORE

A. H. HAWORTH, L.S. Soc. etc.

"The more I observe, the more I find the necessity of observation: and the less I rely upon what I have observed."—Saussure.

ACCEDUNT

REVISIONES PLANTARUM SUCCULENTARUM.

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MDCCCXXI.

TO

THE REV. WILLIAM THOMAS BREE, A.M.

A SUCCESSFUL CULTIVATOR

AND MOST ACCURATE OBSERVER

OF SAXIFRAGEAN PLANTS,

THE FOLLOWING

DISSERTATION ON THE NATURAL ORDER

SAXIFRAGËÆ

IS MOST RESPECTFULLY INSCRIBED,

AS A TRIFLING TESTIMONY OF GRATITUDE AND ESTEEM,

BY

HIS OBLIGED FRIEND, AND HUMBLE SERVANT,

THE AUTHOR.

Typis R. et A. Taylor,
Shoe-Lane.

PREFACE.

Since the publication of the *Dissertation* on such species of the Linnæan genus *Saxifraga* in the year 1803, as the author up to that period had seen alive, or found cultivated in the gardens of England; our knowledge concerning that intricate genus and the genera allied to it, has been much augmented, both by the discovery of new species, and by further information concerning those already recorded.

In the *Dissertation* of 1803, a promise was held out, that it would probably be extended at some future and more favourable period to the remaining *Saxifragæ*, although they might not be cultivated in the gardens of England. That time has at length arrived; and that promise is in the following pages more than fulfilled; the present essay extending itself quite through Saxifraga, to the remaining genera of the Saxifragëan Order, with the exception only of the frutescent and arborescent genera of Hydrangea, Weinmannia, and Cunonia; temporarily appended to it by Jussieu, but

which in all probability are the incipient rudiments of yet another Order, between the present and that of *Caprifolia*.

Nor is the old genus *Saxifraga*, here, merely simply enumerated; but extensively revised; broken down; and remodelled; with a view to lessen its intricacy; (which every Botanist complains of,) by decomposing its incongruous combinations, and rebuilding from the decomposition, and from the examination of many newly discovered species, a more appropriate, commodious, and natural distribution of the whole: thus disposing the old genus into such new generical groups as palpably appear to consist each of plants constructed as it were on one model; and so greatly resembling each other in habit, size, and appearance, that a Geologist might say, they are evidently "all of the same *formation*."

Such the author ventures to believe all *true* Genera really to be; and their species and varieties merely discrepancies of a minor appearance. And such groups usually themselves point out a *common* name; that is, a name applying in common to them all; which again reciprocally points out the group. Whence this mode of collocating plants, should seem to be a natural one at least.

Neither does the famous canon of Linnæus ("Genus dabit characterem, nec character genus,") at all interfere with the plan proposed, although in the present instance, we should rather say, "Genus naturale, naturalitèr dabit nomen: nomen quoque

genus;" because the canon of Linnæus alludes to the fructification alone, while ours more especially looks to the habit.—Happily, too, such natural groups as are here understood, are also usually accompanied by corresponding agreements in the parts which compose their fructifications, and from which Botanists are enabled to construct their technical generical characters: although this (as is best known only to those who have longest laboured at it) is a much less easy business than is commonly imagined; and liable (as the canon of Linnæus asserts) to a multitude of unexpected and interrupting aberrations. These it is the province of the Botanist to overcome. And where the knot is too intricate to be at all unravelled—he who *cuts* it in the most ingenious manner, still renders a valuable service to the science.

In the *Dissertation* of 1803, *Saxifraga sarmentosa* was the only species mentioned as anomalous and isolated; or as likely to form a new genus. And in 1809, it became actually elevated into one, under the name of *Ligularia*, by Duval, in his catalogue of Succulent Plants in the Gardens of Alençon. Since that time, a second species has been discovered and introduced into our gardens, which is here described by the name of *Ligularia minor*, which the writer hears is figured in the Botanica Cabinet, but he has not seen it. Previously to the publication of the above-mentioned Catalogue, the author of this Essay had in his MS. named this genus *Sarmentea*, from its strawberry-

like runners. That name of course he now relinquishes; preserving its signification, however, for the purpose of distinguishing a subdivision of Genera; because these very remarkable plants *still* remain anomalous; and in that manner, still require an isolated post.

After this, in the year 1812, in an appendix to the author's *Synopsis Plantarum Succulentarum*, three more genera were removed from *Saxifraga*, and some new species enumerated. And it was moreover there announced, that more species would eventually recede in the shape of new genera, from the old Genus; the result of which separation will gradually develop itself in the following pages. The new generie names there given, have been carefully constructed from the most universal features; and always in the feminine gender of *Saxifraga;* for the especial purpose of preventing any orthographical alteration in the specific names of the plants, on their elevation to genera; except only in the instances of *Miscopetalum* and *Hirculus;* the former of which was printed before the idea occurred, and the latter remaining (according to the laws of Linnæus) as an ancient *generic* name.

It will in all probability be the opinion of some Botanists, that too many new genera are here made out of the old Genus Saxifraga, and from discrepancies too often resulting from *habit*, and too seldom from *character;* and consequently sometimes unnecessarily introduced. The author

begs leave to refer such Botanists to what he has said in another place: viz. "That it is not a Botanist who actually *makes* genera. He merely attempts, by his art, to *discriminate* those which the mighty hands of his own Maker have already made; and not only made, but sealed; each, as it were, with some peculiar mark; which we distinguish by the name of *habit;* and by which we may know them, without the aid of the characters of the fructification." *Suppl. pl. succ. p.* 40.

But if we take character alone, regardless of habit, as the clue to guide us in the construction of Genera, or even in the difficult determination of Species, we shall frequently be induced to form erroneous conclusions: while on the other hand, the *natural habits,* if duly appreciated, will serve like beacons, and the lights of a Lighthouse, to direct us to the truth.

Yet it may still be said, so great a multiplication of genera burdens the memory; that it is impossible to recollect them: and that new sections might answer as well. It is answered, New sections must have new names, and that those will equally add to the burden of the mind. It may be replied, It is not requisite to remember so minutely, in *any* tribe whatever. But those who so think, will seldom learn to discriminate either closely, or extensively; for in some tribes it is requisite: and if they suppose but half the genera at present on record, can be distinctly retained by human memory; they are as much mistaken as one who

should say, he knew off hand, and thoroughly, all the words of the English dictionary. Happily, it is not *necessary* to recollect extemporaneously either all the Genera, or *half* the Dictionary; so long as the former are systematically distributed, and while the latter submits to the dominion of the alphabet.

With respect to the collocation of the Genera and Species in the present Essay, the author does not flatter himself that it is the best that can be offered for the elucidation of the *Saxifragëan* Order; and it is with diffidence he ventures to propose it as an improvement only, of the old one. Perhaps, indeed, it is scarcely possible that any descriptive arrangement on paper, that is at the same time necessarily a continuous one, that is, in a straight line, can ever be entirely unexceptionable. Because every good Botanist may perceive that a perfectly natural distribution of the genera or the species, should be made, not continuously, but as it were circuitously, somewhat resembling the face of a map; such being the way of nature invariably, in arranging her manifold productions. For as well might Geographers endeavour to link kingdoms and counties longitudinally, as a Botanist to place genera and species *naturally*, in the continuous way of a straight line. For the Kingdoms and the counties in the one case, and the Genera and species in the other, mutually approximate, not merely at *one* point, but almost invariably at many.

Thus would *Spatularia stellaris* (below) be a *Robertsonia*, but for its differing filaments—a *Miscopetalum*, but for its reflected calyx, or a *Saxifraga*, but for both these characters. Yet the causes which would give gracility to the base of its filaments, as in *Robertsonia*, would probably also alter its habit to the petiolated leaves &c. of that genus,—those which would turn up its calyx, might change its cuneated leaves, and clothe its naked scape with the rounded ones of *Miscopetalum*;—or the causes which would produce all those characters, or wipe them all away, might leave it still a true *Saxifraga*. In a word, whatever causes could alter any one of these pristine generic conformations, would likewise, in all probability, very far disturb, or even remodel the appearances of others; so that, however trivial or inefficient the apparent characters of *Spatularia*, or those of any other Genus, may seem as generical ones; they are, nevertheless, *botanically*, very important.

Hence it should seem, that nothing short of a botanical map, or some distribution resembling a genealogical table, can show fairly to any thing but the eye of the *mind*, the real but gradual approximations of genera and species towards each other. And such a scheme, showing individually the essential characters, of at least the Genera, will probably, ere many ages pass, be appended to the head of many a natural Order of Plants; while the letter press details the same longitudinally, and with other characters more at large.

And closely analogous to this doctrine of the conformity of plants of the same natural genus to each other, in this great age of improvement in every way, is the science which displays the actual geographical stations of the genera; or in other words, as we should rather say, the primæval dispersion of the vegetable kingdom over the face of the earth. And this is both a novel and important study. For the primitive distributions have been by no means vague or indeterminate; but almost always geographically regular; although various natural and even artificial operations have, at various epochs, very far disturbed those pristine regulations. Such more especially, as rivers, seas, and floods, (and hence the wide spread of aquatic plants), and the dreadful concussions of geological catastrophes: as well as the various and extensive emigrations of the human race—of quadrupeds and birds: each more or less frequently operating in the wide spread of vegetable seeds: which thereby, wherever the climate is congenial, become occasionally naturalized in a foreign soil. Hence can the geographic botanist frequently trace the sites of ancient and otherwise obliterated towns and cottages, by the extraneous or exotic weeds which remain there very long after the desolation of the ruins they inhabit. And through such means, the time perhaps may arrive, when even some of the most hidden and early migrations of the human race, and the consequent formation of nations, may be faintly found (through the vege-

tables they have left), or gradually developed by the geographic botanist. Thus may Botany help to corroborate the sagacity of the antiquarian and the historian, and the botanist receive reciprocal assistance: thereby proving how important the sciences may become to each other, through the medium of deductions at first imperceptible. But we must cease digressing.

This Essay would not so soon have appeared, had it not been for the solicitations, and through the assistance, of the author's valuable friend and coadjutor in collecting, cultivating, and communicating this Order of plants—the Rev. W. T. Bree, of Allesley near Coventry. For the furtherance of this purpose; he has personally examined many of the English, Welch, and Scotch mountains, with unusual success: and those of Ireland, also, have yielded to his assiduity an abundant harvest of interesting matter. Nor has his zeal stopped even here; for it has induced him to purchase costly publications, without the aid of which the present Essay could hardly have been completed. To his liberal coadjutor, therefore, the author has gratefully requested permission to dedicate the whole.

The observations of Mr. Bree concerning the nature of those multifid-leaved *Saxifrages* allied to *Sax. Hypnoides;* (and which thence we call Hypnoidëan), and more so still respecting the genus *Robertsonia;* the former in the mountains of Wales, Cumberland and Scotland, the latter in

those of Ireland only, (where they seem quite at home,) have been the means of affording us considerable information; and that, too, of a kind not to be satisfactorily acquired, but by an examination of these very variable plants in their spontaneous places of growth.

Thus it was among the wild mountains of Kerry, especially about the lofty "Reecks," in the romantic "gap of Dunloe," and in the neighbourhood of the far-famed and beautiful banks of Killarney, that he gathered every possible shade of intermediate variety, between *Saxifraga Geum* of English Botany, and *Saxifraga hirsuta* of the same work, (but not exactly the *hirsuta* of Linn., which he thinks is not a distinct species;) including moreover pretty near similitudes of the continental *Saxifraga punctata* and *Sax. umbrosa* of Linnæus; yet assuredly not, at least, the latter, nor any thing than can be mistaken for it: nor even the exactly continental *punctata*. In short, he scarcely found any thing constant amongst them, except their constant tendency to endless variation: and all this, apparently, through the hybridizing processes of cross impregnation. Hence he finds the greatest difficulty in determining which are the original species, from whence all this profusion of mongrels have gradually arisen; and concludes they are but two. Neither is he satisfied that *Robertsonia umbrosa*, which he gathered in Hessleton Gill, Yorkshire, (the place mentioned in English Botany,) is more than of garden origin;

wherefore that long doubted native of Britain must again remain at least a doubtful British species. But here, the author, yet with diffidence, inclines to disagree with his coadjutor; simply because the Hessleton Gill plant is not by any means the same as the common foreign *R. umbrosa* of our gardens, but a very strong variety of it, with much shorter petioles and smaller panicles; which do not appear to alter under the tests of cultivation. This variety, Mr. B. supposes, may be the same as the *Robertsonia umbrosa*, which is found on the banks of the Clyde, although in all probability not of spontaneous origin. And a plant Mr. B. received from the Edinburgh Botanic Garden (and which he conjectures is the Clyde one) under the name of *Saxifraga umbrosa*, "is so much like the Hessleton Gill one, that it might well pass for it." Such, in a letter, are his words; and he also says that he saw *R. umbrosa* "*almost naturalized*" in a romantic spot near a gentleman's seat in the county of Wicklow.

With respect to the whole tribe of *Hypnoidëan Saxifrages*, Mr. Bree is inclined to think that they are really as sportive on the Welch and Scotch mountains, as that of *Robertsonia* on the mountains of Ireland. And this opinion he takes up not rashly, but from having actually observed similar variations, and innumerable gradations in hue, and size; and even, as he imagines, in the laciniation of their leaves. Wherefore, it has been deemed proper in the present Essay to reduce the number of supposed *Hypnoidëan* species, as well as those

of the variable genus *Robertsonia;* retaining nevertheless in both tribes, some of the leading variations as named varieties, or subspecies.

It may here be imagined by some, that the author's opinions concerning the specific distinctions of plants, are as peculiar as those above advanced respecting the genera. For his continued experience seems at length to confirm him in the doctrine which he has ever in private proposed; but which now he ventures thus publicly to announce, viz. That there are, on the one hand, many native plants which afford *no* specific characters, in the Linnæan sense of those words, and which still are species: and that, on the other hand, there are some, which, although they present abundant specific characters of the Linnæan kind, are nevertheless varieties only.

Hence it is conceived that the *Hypnoidëan Saxifragæ* of Snowdon, &c. are but seldom, if ever, exactly the same as those of Scotland: or that either precisely resemble those which inhabit the mountains of Kerry. And the keen eye of a botanist, by their habit alone, is able to distinguish the one from the other, however trifling their actual discrepancies may be.

The *Hypnoidëan* tribes are perhaps more difficult to understand correctly than any other; for although the eye of a botanist may be able to discriminate amongst them, the tongue often, and even the pen, is foiled in attempting to describe what is actually perceived. In this intricate department therefore, above all others, the author

solicits the reader's indulgence, having still endeavoured to do his best. The strictest attention is necessary both to the rosaceous and stoloniferous periods of growth in these plants, as laid down at large in the *Dissertation* of 1803; nor can any thing decisive be determined without it, although the period of their earliest flowering seems to afford the best opportunity for constructing characteristic names; for perhaps at no other season are so many and such strong characters simultaneously developed. Then are the old rosaceous leaves of autumn and winter, still surrounding the base of the scape; and the nascent stolones of spring, beginning to shoot forth; and perhaps also, every other character is then partly perceptible; except, indeed, the elongation of the styles and stigmas, and capsules which are yet unformed. But fortunately the three last points are more of generical than specific importance. And were we to wait till they were formed, the rosaceous leaves would partly disappear, and the ripening stolones would thicken at their ends, commencing the preparation for the future rose-shaped tufts: thus blending together the distinctive features of two remarkable seasons of growth, so as to defy the discrimination of the most discerning eye, and baffle the decision of the most consummate judge.

Here, perhaps, towards the close of this preface, a few words respecting the cultivation of *Saxifragëæ* may neither be unacceptable, nor inappropriate; especially as they are offered as the result of long experience and extensive cultivation.

All the larger species thrive very well in almost any situation, yet seem to prefer moisture, coolness, and moderate shade; and to look neat, require transplanting and dividing at least once in every two or three years. The middle-sized species will also thrive in shady borders (but not overshadowed by trees) of very light vegetable earth, especially such boggy earth as Rhododendrons and Heaths delight in; in such situations they require dividing and transplanting at least once in every year.

The remaining small and minute species will scarcely thrive out of small pots of bog earth and loam, and are best sheltered in a frame during the winter, from excess of wet and frost; but at all other times they require to be constantly exposed to the air, and should be carefully divided and transplanted every spring and autumn into fresh earth. These pots in summer should have the morning sun only for a few hours, in autumn rather more, and in the middle of winter an aspect to the south; but still with the lights of the frame constantly down in all but very wet or hard frosty weather; and even then they may be exposed, if the sun shines strongly: for nothing is more prejudicial than forcing their natural forwardness prematurely into blossom.

The whole order, but more especially the smaller species, are excellent furniture for rock-work; and if placed judiciously with regard to aspect, will succeed very well, and prove highly ornamental.

It is scarcely necessary to add, that due atten-

tion to watering is requisite, especially for those in small pots; and that worms, slugs and snails are remarkably partial to all these plants, and often destroy them, in spite of the most unabating assiduity of the gardener to prevent such depredations. The Genus *Ligularia*, being more tender than the others, is hardly secure, even in mild winters, without the protection of the greenhouse, although near London it sometimes survives, and even flourishes out of doors on shaded rock-work. The earth in the pots, and about the small species on rock-work, &c. should be stirred on the surface occasionally, and a little fresh added when requisite; and the whole of course kept clear from weeds, or the overpowering luxuriance of other plants. The Genus *Antiphylla*, although its native rocks are moist, in a cultivated state delights more in sun and drought than many of the others, and indeed will not blossom in our open ground at all, or even in pots without due attention to its proper wants. But if planted in a mixture of half bog earth and loam, placed in the full sun, and watered sparingly even in summer, and wintered in a frame; it will blossom annually, very early and brilliantly. From its small size, lovely flowers, and early appearance, it is a welcome ornament to the parlour or study, and is brought abundantly to Covent Garden Market every March, or even at the end of February, and eagerly purchased (as other writers have observed) for those purposes.

Most of the species are propagated very rapidly by parting their roots in spring, summer, or au-

tumn; and also plentifully, even by self-sown seed;—but the seed when produced in the neighbourhood of kindred species, is ever liable to be adulterated through the means of busy insects, or the passing gales; and is therefore on no account to be preferred where an increase can be had by parting the roots. Indeed, from the numerous mongrels already in our gardens, this tribe, like some few others, threatens very soon to bid defiance even to the eyes of a botanist, to discriminate amongst its contaminated seedlings, which are constantly arising, however distinct the parent plants may be, and how widely soever separated in a state of nature by intervening countries or continents, or even half the globe.

The seeds when sown, require only shade and moisture, and the common protection from weeds, frost, worms, insects, slugs, and snails, &c.; and will flower the second year after sowing, and sometimes sooner. But as they usually vegetate very freely, thinning and transplanting are frequently necessary.

Cottingham near Hull,
Jan. 7, 1817.

P.S. An *, as heretofore, denotes such plants as are presumed to have been first specifically described by the author; or by him first shown to be erroneously named by other authors; or, at the least, first admitted by the present writer as distinct species, since the days of Linnæus.

SAXIFRAGEÄRUM ENUMERATIO.

PLANTARUM DIVISIO,

DICOTYLEDONES.

CLASSIS XIV. POLYPETALÆ.

STAMINA PERIGYNA.

SAXIFRAGÆ. DIV. I. II. *JUSS.*

ORDINIS CHARACTERES (subinde) ex *Juss.*

Calyx superus, semisuperus, inferusve, germen includens, 4-5-fidus.

Corolla parva, 4-5-petala, rarissimè 4-5-fida, nullave; petalis summo calyci insertis, ejusdemque laciniis alternis.

Stamina totidem, aut sæpius dupla, rariusve 8-9, ibidem inserta.

Styli et *Stigmata* 2-5, primò exigui, demum sæpius grandes, persistentes.

Fructus capsularis polyspermus, apice birostris bivalvis, valvis introflexione dissepimentum con-

stituentibus; rarius omnino bivalvis, vel bilocularis; rarissimè subbaccatus 4-5-locularis; loculis monospermis.

Semina dicotyledonea minuta, rotunda oblongave, lente glabra, tuberculata, sulcatave. *Corculum* incurvum typo farinaceo, aut subcarnoso, circumpositum.

Herbæ sæpius ramis sempervirentibus, humiles sive exiguæ, radicibus (Tridactylites excepta) perennibus fibrosis, rarissime annuis vel granulosis, rectimve herbaceis. *Folia* fere semper alterna, petiolata indivisa lobata palmatifida, vel rarius ternata biternatave, crassiuscula vel carnosula subimbricantia, vel in rosulas densè sæpe disposita. *Scapi* sæpe paniculati teretes solidi, rariusve fistulosi, ramis foliolo bracteâve suffultis. *Habitant* præcipue in montibus Europæis; undecim in insula arctica Melville: rarius locis humilioribus, et fere semper in humidis: perpaucæ in Siberia et Americ. Septent.: unaque in Peru, duæ in Sina Japoniave: alteraque in montibus Nepaulensibus.

GENERUM DISTRIBUTIO, CHARACTERESQUE EORUM ESSENTIALES.

I. DECANDRÆ.

1. *UNIVALVES.*

* RECTO-CALYCATÆ, calycibus rectis.

† Acaules ramis propriis nullis, foliis sempervirentibus, scapis sæpe aphyllis.

1. MEGASEA. Stamina calyci semicoadunata.
2. DERMASEA. Stamina libera, petala distantia.
3. CHONDROSEA. Germen hemisphæricum annulo tumenti.

†† Foliosæ, (rarius annuæ rectimve herbaceæ,) ramis plerumque sempervirentibus; scapis caulibusve foliosis.

4. MISCOPETALUM. Petala pedunculata.
5. LOBARIA. Germen superum. Styli breves recti, stigmatibus inconspicuis.
6. TRIDACTYLITES. Germen inferum urniforme. Styli breves patuli, stigmatibus inconspicuis.
7. SAXIFRAGA. Germen semiinferum. Styli longi, stigmatibus magnis spatulæformibus.

8. MUSCARIA. Germen inferum. Petala sessilia angusta.
9. LEPTASEA. Germen superum. Petala sessilia angusta remota.
10. HIRCULUS. Petalorum basi rima nectarifera.
11. CILIARIA. Germen superum. Petala orbiculato-ovata unguiculata.
12. ANTIPHYLLA. Germen semiinferum. Styli subacuminati.

** REFLEXO-CALYCATÆ, laciniis calycinis reflexis, scapis fere aphyllis. Germen superum.

† SESSILIFLORÆ, corollis regularibus.

13. MICRANTHES. Petala lorata distantia.

†† DECURRENTES, foliis alatim decurrenter petiolatis; petalis 2 inferioribus cæteris plerumque longioribus.

14. AULAXIS. Capsulæ fere in duas divisæ. Corollæ irregulares.
15. SPATULARIA. Capsularum rostra recta. Corollæ præirregulares. Semina oblonga medio parum crassiora. Inflorescentia laxè et tenuè paniculata. Stamina infernè parum crassiora. Sive: Capsularum rostra recurva. Corollæ regulares. Semina subovata gibba. Inflorescentia minimè corymbosa.

††† SARMENTOSÆ, corollis maximè irregularibus, sarmentis numerosis tenuissimè filiformibus carnosis.

16. LIGULARIA. Germinis glandula cerina dentata.

†††† Punctifloræ, corollis regularibus foliis altè petiolatis.

17. ROBERTSONIA. Stamina basi gracillima, supra valdè incrassata.

2. *BIVALVES*, capsulis unilocularibus bivalvibus.

18. MITELLA. Petala pinnatifida.

19. TIARELLA. Petala integra.

II. OCTANDRÆ.

20. CHRYSOSPLENIUM. Corolla nulla.
21. ADOXA. Corolla 4-5-fida.

III. PENTANDRÆ.

22. HEUCHERA. Capsulæ biloculares.

SPECIERUM ENUMERATIO, EARUMQUE CHARACTERES VARIÆ.

I. DECANDRÆ.

1. *UNIVALVES.*

* RECTO-CALYCATÆ, calycibus rectis.

† Acaules, ramis propriis nullis; foliis sempervirentibus, scapis sæpe aphyllis.

1. MEGASEA. (Saxifraga *Linn.* &c.)

Calyx campanulato-5-lobatus infernè melliferus. *Petala* 5, persistentia. *Stamina* calyci coadunata, usque ejus lobos. *Germen* superum. *Capsulæ* 2-rostratæ basi solum coalitæ.

Herbæ perennes, maximæ in Saxifrageärum ordine, senectæ caudiculatæ. *Folia* petiolata indivisa magna erecto-effusa sempervirentia. *Scapi* 2-3-pedales robusti. *Flores* inter majores, præcociores, purpurei, paniculatim conglomerati, penduli.

Obs. Germen semiinferum hoc quasi intendit Natura, at omisit colligere calycis partem inferiorem, ut in affinibus; inde magnum anomalum vidi, viz. Calycem 5-lobatum staminibus eo manifestè coadunatis: in cæteris invisibiliter.

crassifolia. M. foliis obovatis retusis.
1. *Saxifraga crassifolia. Linn. sp. pl.* 573.—*Willd. sp. pl.* 2. 644.—*S. crassifolia* α. *Ait. hort.*

kew. ed. 1. *v.* 2. 79.—*ed.* 2. 3. 67.—*Curtis magaz.* 196.—*Pers. synops.* 1. 488.—*Gmel. fl. sib.* 4. 166. *t.* 66.

HABITAT in Siberia. ♃.

INTROD. in hortis 1765.

FLORET Mar.—Apr.

OBS. *Folia* retusa obsoletè serrata, supra plus minus rubentia. *Scapi* 1-3-pedales. *Petala* subinde sex.

M. foliis cordatis orbiculatis crenatis; floribus glomeratis. *cordifolia.* 2. *

Saxifraga cordifolia, nobis in Misc. nat. p. 156. —*Ait. hort. kew. ed.* 2. 3. 67.—*S. cordifolia β, ed. prioris.*

HABITAT in Siberia.

INTROD. in hortis ante 1779.

FLORET Mar.—Mai. ♃.

OBS. Simillima præcedenti, sed abunde distincta: differt foliis cordatis orbiculatis viridioribus, magisque serrato-crenatis, paniculâ magis glomerata et patenti.

M. foliis suborbiculato-cordatis planis minime crenulatis. *media.* 3. *

HABITAT in Siberia? ♃.

OBS. Vigebat in regio horto Kewense, A.D. 1819, quasi intermedia inter duas præcedentes, at folia planiora integriora. *Flores* speciosiores, saturatiores, minus glomerati. *Floret* cum illis.

M.? foliis subcordato-cuneatove-orbiculatis strigoso-ciliatis. *ciliata.* 4. *

HABITAT in montibus Nepaulensibus. Folii partem, floresque 10 siccatos, communicavit Amicus R. A. Salisbury, F. R. S. &c., nomine Bergeniæ

species *Mœnch.*, cum proposito nomine specifico ciliaris, A. D. 1819. Et vidi viventem (sine flore) in regio horto Kewense, in eodem anno. Non rectè examinavi.

2. DERMASEA. (Saxifraga *Linn. &c.*)

Calycis laciniæ horizontales latè parabolicæ planæ. *Petala* persistentia distantia, plus minus rotundato-ovalia, exunguiculata alba immunia. *Stamina* brevia filiformia. *Germen* semisuperum grossum semifissum. *Styli* brevissimi, *stigmatibus* mediocribus.

Herbæ perennes. *Folia* breviter petiolata plana humi expansa, duriora s. subcoriacea, plus minus, præcipue ad margines, villosula, pilis (lente) subglanduliferis. *Scapi* solidi, pilis glanduliferis, *bracteis*que majusculis foliiformibus apud flores capitatos fere sessiles, s. capitato-paniculatos; vel ad ramos panicularum.

pilosa. D. foliis cuneato-obovatis subdentatis petiolo bre-
1. vioribus, caule paniculato.
* *Saxifraga pilosa. Nobis in Misc. nat.* 157.—*Sax. virginiensis. Pursh. fl. americ. sept.* 310.—*Bot. magaz. t.* 1664.

Habitat in America Septentrionali: quoque in Scotiæ montibus, teste Dom. Geo. Donn, cujus filius mecum communicavit.

Floret Apr. ♃.

Introd. in hortis circa 1800.

Facies sequentis, at paulo major, minute omnino pilosa (fructificatione excepta). *Radix* fibrosa. *Folia* obovata obtusissima dentata, basi sæpe subcuneata, utrinque pilis brevibus erectis vestita, *petiolis* folio longioribus semiteretiusculis. *Caules* plurimi erecti spithamei teretes subnudi

paniculati, ramulis alternis. *Bracteæ* lineari-subulatæ, minutim ciliatæ. *Pedunculi* solitarii breves, pilis horizontalibus minutè vestiti. *Calyx* campanulatus quinquefidus, laciniis ovatis glabris æqualibus. *Corolla* quinquepetala, *petalis* ovato-oblongis sive ellipticis albis immaculatis, a medio subrecurvatis. *Filamenta* decem brevia albida, *antheris* luteis. *Germen* superum viride. *Styli* duo virescentes. *Misc. nat. l. c.*

β. (*verna*:) foliis cuneato-ovalibus argutè serratis petiolo brevioribus, caule paniculato, floribus subglomeratis.

Sanicula virginiensis alba, folio oblongo-mucronato. Pluk. phyt. t. 222. *f.* 5.
S. vernalis. Sternberg. rev. p. 8.
S. virginiensis. Mich. amer. 1. *p.* 269.
Saxifraga verna. Hortulanorum.
Communicavit Rev. Dom. G. T. Bree.

D. foliis obovatis crenatis subsessilibus, scapo subnudo simplici, floribus congestis. *nivalis.* 2.

Saxifraga nivalis. Linn. sp. pl. 537.—*Smith fl. lap. t.* 11. *f.* 5.—*Lightf. fl. scot.* 1. 221. *pl.* 12.—*Scop. carniol. t.* 14. *f.* 1, 2, 3.—*Deutsch. fl. cum icone.*

Habitat in Scotiæ et Cambriæ montibus, quoque in insula arctica Melville; lecta a Dom. Lieut. Hopner, et mecum communicata, cum 10 aliarum Saxifrageärum, pluribusque aliis arcticis plantis: præcipuè Potentillarum quatuor.

D.? foliis petiolatis, oblongis, obtusis, remotè denticulatis, pilosiusculis, scapo aphyllo, elongato, pubescente, floribus corymbosis. *Sternb.* (*Saxifraga*) *p.* 9. *t.* 14. *elongata.* 3.

α pubescens. Habitat in Carolina.
β glabra. Habitat in alpibus Sejanensibus.
Obs. Planta altaica, a virginiensi non nisi glabritie et petalis basi magis angustatis differre videtur. *Sternb. l. c.*
Non vidi. An duæ species?

3. CHONDROSEA. (Saxifraga *Linn. &c.*)

Calyx laciniis suberectis planis parabolicis. *Petala* persistentia, marcescentia. *Germen* truncatim sub-hemisphæricum fere inferum, annulo tumenti. *Stamina* brevia plana, supernè attenuata.
Plantæ perennes acaules duræ, *foliis* radicalibus plus minus lingulatis more Sempervivi dispositis, cartilagineo-dentatis, dentibus farinaceo-marginatis. *Scapi* caulesve floriferi foliosi maxime paniculati. *Flores* sæpe copiosi, inter majores, albi, elegantissimè rubro punctati, formosiores.

* *Genuinæ*, foliis sub-ligulatis chondroseis.

pyramidalis. 1. C. foliis linguæformibus apice obovatis, scapo pyramidali ramosissimo laxo, petalis impunctatis, stylis antherisque carneis.
Saxifraga pyramidalis. Sternb. revis. t. 2.—*Pers. synops.* 1. 486.—*Deutsch. fl. cum icone.*
S. Cotyledon. Linn. sp. pl. cum aliis nimis indefinitè.
S. Cotyledon. Fl. dan. t. 241.—*Nobis in Misc. nat. p.* 158.
Habitat in Pyreneis.
Floret Jun. ♃.
Introd. 1792.

C. foliis angustè linguæformibus longis subintegris, supernè sublatioribus, margine asperato argenteo. *intermedia.* 2.

HABITAT.... *

FLORET Jul. ♃.

INTROD. ante 1808.

OBS. Inter præcedentem et sequentem exactè intermedia. Inter illas forte hybrida. *Flores* fere præcedentis at majores pulchriores petalis rubro valde punctatis punctis confluentibus. *Folia* sequentis potius, at tantillum latiora præcipuè apicem versus.

C. foliis ligulatis longis, caule ramoso subpyramidali, petalis rubro punctatis. *longifolia.* 3.

Saxifraga longifolia. Lapeyr. pyr. p. 26. *t.* 11.—*Pers. synops.* 1. 487.

β media. Sternb. sax. t. 1. a.

γ crustata. Sternb. sax. t. 1. b.

HABITAT in Pyreneis, &c.

OBS. Præcedentibus simillima, foliis longioribus angustioribus, petalis maculis parvis confluentibus lætissimè rubicundis. *S. ligulata. Misc. nat. l. c.*

C. caule recto paniculato, petalis rubro punctatis, germine antherisque luteis. *Aizoon.* 4.

Saxifraga Aizoon. Sternb. sax. t. 3. a.—*Nobis in Misc. nat. p.* 159.

S. recta, foliis radicalibus rosulatis strictis glaucis supinis, incisuris cartilagineo-argenteis, panicula simplici. Lapeyr. pyr. 1. *p.* 33.—*Pers. synops.* 1. *p.* 487.—*Pluk. phyt. t.* 221. *f.* 1. —*Moris. sect.* 12. *t.* 9. *f.* 19.—*Barrel. ic.* 1309, 1311, 1312.

HABITAT in rupium fissuris Europæ.

β minor: foliis sub-duplo angustioribus, minusque cartilagineo-serratis: petalis minoribus.

γ *parviflos*: foliis duplo angustioribus quam α, longioribus minusque albo serratis: petalis duplo minoribus.

Obs. Sequenti valde affinis, differt foliis longioribus angustioribusque, dentibus minus dealbatis: a Ch. ligulata statura minore, floribus minus paniculatis: a Ch. pyramidali, staturâ paniculâque minoribus, foliisque omnino angustioribus. *Synop. suc. l. c.*

rosularis. 5. * C. surculis apice rosæformibus, caule recto supernè paniculato subcorymboso, petalis albis rubro parce punctatis.

Saxifraga Aizoon, foliis radicalibus aggregatis lingulatis cartilagineo-dentatis, caule simplici racemoso folioso, calycibus glabris. Willd. sp. pl. 2. 639.—*Deutsch. flora, cum icone.*

S. Cotyledon ε. *Linn. sp. pl.* 1. 570.—*S. foliis radicalibus in orbem positis, serraturis cartilagineis. Fl. lap.* 177. *t.* 2. *f.* 2.—*Barrel. ic. t.* 1310.

S. rosularis hortorum, quoque nobis in Misc. nat. p. 159.—*S. Aizoon* β, *minor, brevifolia. Sternb. sax. t.* 3. b.

Habitat in Pyreneis.

Introd. 1629.

Floret Jun.

Obs. Ch. pyramidali et Ch. ligulatæ simillima, at minor, minusque paniculata, foliorum serraturis magis argenteis. *Misc. nat. l. c.*

Differt Sax. Cotyledone, caule racemoso, et calyce glabro. *Willd. l. c.*

cartilaginea. 6. C. foliis radicalibus aggregatis, lanceolatis, acutis, cartilagineo-serratis, caule simplici racemoso, folioso, glabriusculo, pedunculis glanduloso-

pilosis, calycibus glabris obtusis, corollis immaculatis. *Sternb. (sax.) t.* 3. c. *p.* 5.
HABITAT ad Caucasum. Non vidi.

C. foliorum marginibus cartilagineo-repandis, caule racemoso folioso, calycibus glanduloso-pilosis, petalis lineari-lanceolatis luteis. *mutata.* 7. *
Saxifraga mutata. Gm. syst. nat. 2. 704.—*Willd. sp. pl.* 2. 640.—*Bot. magaz.* 351.—*S. mutata. Deutsch. flora, cum icone.*—*Sternb. sax. p.* 6.
HABITAT in Europæ alpibus.
FLORET Jun. ♂.
INTROD. 1793.
OBS. Præcedentibus longe discrepat. Dignoscitur foliorum marginibus minus albis, petalisque luteis. Radix tantummodo biennis.

C.? foliis radicalibus rosulatis ligulatis integerrimis, petalis staminibusque intra calycem clausis. *calyciflora.* 8.
Lapeyr. pyr. b. c. *p.* 28. *t.* 12.—*Pers. synops.* 1. 487.—*Sternb. rev.* 6.

C.? foliis radicalibus aggregatis, ligulato-spathulatis, brevi mucronatis, glabris, caulinis glanduloso-pilosis, floribus paniculatis, calycibus coloratis, petalis citrinis. *Sternb. sax. p.* 7. *luteopurpurea.* 9.
HABITAT in rupium fissuris Pyreneorum.

** AMBIGUÆ, longè minores. Fortè alii Generis. Viventes vix vidi.

† foliis obtusis sæpe induratis.

C.? foliis coriaceis indivisis alternis glaucis verticalibus subtriquetris, margine membranaceis; rosulis elongatis subcylindricis; petalis longe *Diapensoides.* 10.

ellipticis. *Gaudin* (*sub saxifraga, in Naturwissenchaft,*) No. 9. 1818.

HABITAT in Helvetiæ alpibus. Habui a Dom. Philippo Thomas.

OBS. Herba vel parva Suffrutex. *Folia* obovata concava apice retuso-deltoidea perforato-punctata. *Caulis* florifer foliolosus hirsutus 1-7-florus, pilis apice glandulosis. *Petala* angusta. Siccam solum vidi.

Aretioides. 11. C.? foliis radicalibus rosulatis integris, floribus capitatis: petalis linearibus obtusis crenulatis. *La Peyrouse fl. pyren.* (*Saxifraga.*)—*Pers. syn.* 1. 487.—*Deutsch. fl. cum icone.*

HABITAT in Pyreneis.

cæsia. 12. C. foliis linearibus perforato-punctatis aggregatis recurvatis, caule multifloro. *Pers. syn.* 1. 487. (*Saxifraga.*)—*Jacq. austr. t.* 374.—*Scop. carn. t.* 15.—*S. recurvifolia. La Peyrouse pyren. p.* 30.

FLORET Maio. ♃.

INTROD. 1794.

Folia basi ciliata. *Pers. l. c.*

β *laxior. S. cæsia. Deutsch. fl. cum icone.*

patens. 13. C.? foliis coriaceis indivisis alternis patentibus oblongis cæsiis apice et ad margines membranaceas porosis: rosulis abbreviatis, petalis ovatis. *Gaudin in Naturwissen. No.* 9. 1818. *Saxifraga.*—Cæsiæ affinis et forte ejusdem var. insignis, fol. 4-plo majoribus patentibus, lævibus, neque crusta calcarea abductis neutiquam recurvis. *Petala* albida, neque lactea ovata calyce longiora. *Gaudin, l. c.* Siccatam, a Philippo Thomas, solum vidi. Species rariss.

†† foliis acutis: an alii generis?

C.? foliis coriaceis indivisis alternis, triquetris *Vandel-*
acutis margine membranaceo serrulatis, caule *lii.*
hirsuto subquinquefloro. *Gaudin in Natur-* 14.
wissen. No. 9. 1818. (*Saxifraga.*)

Planta rariss.

Siccatam solum vidi, a Philippo Thomas.

HABITAT in alpibus editissimis Valesiæ? et Rhetiæ. *Gaudin, l. c.* ♃.

C.? foliis aggregatis imbricatis triquetris subula- *Burseri-*
tis lævibus, caule subnudo unifloro. *Pers.* *ana.*
syn. 1. 487. (*Saxifraga.*) — *Jacq. misc.* 1. 15.
t. 17.

HABITAT in Taurero Rastadiensi. ♃.

Siccatam solum vidi, at non possideo.

β *spinosa. Pers. l. c. La Peyr. pyr. t.* 17. *f.* 1.

C.? foliis lanceolatis mucronatis basi ciliatis im- *tenella.*
bricatis, caule nudiusculo paucifloro: calycibus 16.
mucronatis. *Pers. syn.* 489. (*Saxifraga.*)—
Jacq. collect. 3. *t.* 17.

HABITAT in Carinthiæ alpibus.

Siccatam solum vidi. Non possideo.

Petala (in *Deutsch. fl.* depicta) minuta distantia spatulata alba. *Folia* adscendentia basi ciliata. —*Caules* floriferi terminales sub-3-flori minuti, foliolis distantibus. *Germen* pilosum. *Foliola* calycis ovata longe aristatim acuminata, *petalis* paulo longiora.

C.? foliis verticillatis lineari-subulatis, rigidis, *junipe-*
mucronatis, basi serrulatis, floribus spicato-ca- *rina.*
pitatis. *Sternb. sax.* 31. *t.* 10. *f. media.* 17.

HABITAT in Caucasi saxis. Non vidi.

nitida. 18. C.? foliis aggregatis, imbricatis, lanceolatis, spinuloso-mucronatis ciliatisque, subtus nitidis, caule nudiusculo, paucifloro. *Sternb. sax.* 32. *t.* 10. b. *f.* 4. Non vidi.

†† Foliosæ, (rarius annuæ, rectimve herbaceæ,) ramis plerumque sempervirentibus; scapis caulibusve valde foliosis.

4. MISCOPETALUM. *Nobis in Synops. succ.* 323. (Saxifraga *Linn. &c.*)

Calyx laciniis 5, erectis. *Corolla* 5-petala, *petalis* oblongo-lanceolatis pedunculatis albis perlepidè rubro punctatis. *Filamenta* filiformia uniformia, *antheris* didymatis. *Germen* superum, *stigmatibus* demum capitulæformibus, fungiformibusve.

Herbæ perennes foliis duris rotundatis inciso-dentatis viridibus, hyeme gradatim marcescentibus; *scapis* solidis tenuiter paniculatis, folio magno peculiari ad singulum ramum altè inciso-dentato.

rotundifolium. M. foliis rotundo-reniformibus grandè crenatis, caulinis dentatis, pallidè viridibus.

1. *Miscopetalum rotundifolium.* *Nobis in Synops. succ.* 323.

Saxifraga rotundifolia. *Linn. sp. pl.* 1. 576.—*Deutsch. fl. icon?* nempe petala non pedunculata repræsentantur.

Sanicula guttata. *Ger. emac.* 7. 88. 1?

Sanicula guttata major. *Park. parad.* 231. *t.* 233. *f.* 1.—*Sedum sive Sanicula rotundifolia montana major.* *Moris. hist. sec.* 12. *t.* 8. *f.* 10?

Habitat in alpibus umbrosis.

Floret Jun. ♃.

Introd. Ante Parkinsoni tempora.

β *repandum.* *Sternb. sax. t.* 5. *Saxifraga repanda.*

γ *minus;* foliis rotundo-reniformibus lobatim argutèque duplicato-dentatis, petalis punctis intensioribus.

Saxifraga rotundifolia. Curt. bot. magaz. t. 424. *Herbariique Linnæi.* An propria species?

Obs. Folia altius lobatim inciso-dentata, basi lobis duobus infimis magìs approximatis.

Introd. ante 1790.

Habitat ....

Obs. Mr. Curtis, speaking of *Saxifragæ*, says, "Of this numerous and beautiful tribe of plants, we know of none whose flowers in point of prettiness can vie with those of the present species; they are marked with numerous fine dots, like those of the London Pride (*Saxifraga umbrosa* Linn.), but in a superior style of beauty; and appear to great advantage when viewed with a magnifier." *Curtis l. c.*

Obs. All the *Robertsoniæ* (of which the London Pride is one) are marked in the same manner: and some *Chondrosiæ* (of which the "Pyramidal Saxifrage" is a species) still more beautifully.

M. foliis rotundo-reniformibus duplicatim altèque crenato-dentatis rigidis; lobis duobus infimis sæpe imbricantibus; petalis altius pedunculatis. *majus.* 2. *

Habitat in Siberia.

Floret Mai.—Jun. ♃.

Introd. ante 1812.

Obs. Priore subduplo major, foliis viridioribus altiùsque crenato-dentatis. *Petala* alba, rubro punctata, apicem versus immunia.

Communicavit ex horto Hullense Dom. Gulielm. Donn.

5. LOBARIA. (Saxifraga *Linn.* &c.)

Calyx erectus. *Petala* 5, alba immunia. *Stamina* ...... *Germen* superum. *Styli* breves recti, *stigmatibus* inconspicuis.

Herbæ perennes vel sæpe annuæ, radicibus fibrosis, exiguæ, foliis glabris palmato-lobatis. Viventes vix vidi. Flores non satis examinavi.

hederacea. 1. L. foliis caulinis ovatis lobatis, caule filiformi flaccido. *Linn. sp. pl.* 1. 579. (*sub Saxifraga*)—*Willd. sp. pl.* 2. 658. 46.—*Hort. kew.* 2. 82. *ed.* 2. 3. 72.—*Pers. syn.* 1. 489.

S. cretica, annua, minima, hederaceo folio. Tourn. carn. 18.

HABITAT in Creta. ☉.

FLORET Jul.

INTROD. 1752.

Vidi solùm siccam.

orientalis. 2. L. foliis subrotundis quinquelobis, caule ramosissimo procumbente. *Willd. sp. pl.* 2. 658. (*sub Saxifraga.*)

Saxifraga, foliis radicalibus rameisque quinquelobis septemlobisve, summis integerrimis bifidisve, caule ramosissimo basi procumbente. Jacq. Obs. 2. *p.* 9. *t.* 34.

Similis S. Cymbalariæ, tamen diversa, an vero satis distincta, a S. hederacea? *Willd. l. c.*

HABITAT in Oriente. ☉?

Non vidi.

Cymbalariæ. 3. L. foliis caulinis cordatis trilobis integrisque, caulibus procumbentibus. *Willd. sp. pl.* 2. 657. (*sub Saxifraga.*)

S. exigua, foliis Cymbalariæ. Buxb. cent. 2. *p.* 40. *t.* 45. *f.* 2.
HABITAT in Oriente. ⊙?
Nunquam vidi.

L. foliis cuneatis quinquelobis, caulinis lanceolatis, floribus paniculatis. *Cavan. ic.* 3. *p.* 25. *t.* 248. (*sub Saxif.*) *cuneifolia.* 4.
Saxifraga cuneata, foliis inferioribus petiolatis cuneiformibus quinquelobis, caulinis sessilibus lanceolatis, caule adscendente paniculato. Willd. sp. pl. 2. 658.
HABITAT in Hispania, montibus frigidis prope Castellfort. ♃.
OBS. Germen semiinferum. *Cav. l. c.*—Germen inferum. *Willd. l. c.*
Nunquam vidi.

L. foliis palmatis quinquelobis, caulinis ovatis; caule basi procumbente reptante. *rivularis.* 5.
Saxifraga rivularis. Willd. sp. pl. 2. 652.—*Engl. bot. t.* 2275.—*Fl. dan. t.* 118.—*Fl. lap. ed. sm. t.* 2. *f.* 7.
HABITAT in rivulis et rupium fissuris irriguis Scotiæ.
FLORET Jun. Jul. ♃.
β *petiolaris.* Sax. petiolaris. *Brown in Ross's voyage to Baffin's bay.*
Foliorum laminis minoribus, petiolis longioribus, sed vix distincta. *Exemp.* 1. *sicc.* apud Baffin's Bay lectum, solùm vidi.
Communicavit amicus Dom. J. E. Gray.
Convenit fere cum fig. S. rivularis in *Sternb. sax. t.* 12. *f.* 3.

reticulata. 6. L. ? foliis cordatis, repando-dentatis, reticulato-venosis, caule folioso erecto. *Sternb.*(*saxifraga*) *p.* 21. *t.* 13.

HABITAT in Iberia.

paradoxa. 7. L. ? foliis petiolatis, cordatis, reniformibus, sublobatis; pedunculis filiformibus, axillaribus unifloris, petalis calyce connatis, subconcoloribus. *Sternb.* (*saxifraga*) *p.* 22. *t.* 14.

HABITAT in Carinthiæ alpibus ad rivulos Savi. *Sternb. l. c.*

arachnoidea. 8. L. ? foliis cuneatis, apice repando-dentatis, caule debili, prostrato, ramosissimo, petalis integris calyces connatu excedentibus. *Sternb.* (*saxifraga*) *p.* 23. *t.* 15.

HABITAT in umbrosis saxosis Tyrolensibus.

Hanc et præcedentem nondum vidi.

cernua. 9. L. foliis palmatis petiolatis, caule bulbifero, germine supero, petalis retusis. *Sm. fl. br.* 1. 453. (*sub Saxifraga.*)—*Willd. sp. pl.* 2. 652.—*Fl. dan. t.* 390.—*Sm. fl. lap. t.* 2. *f.* 7.

OBS. Petalorum figura valde variat.

α retusa. Petalis valde retusis ut in figuris supra citatis.

β obtusa. Petalis obovatis. *Sax. cernua. Engl. bot. t.* 664.

γ acuta. Petalis acutis. *Sax. cernua. Fl. dan. t.* 22.

HABITAT in Lapponia; *β* in Scotiæ; *γ* Norwegiæ alpibus.

FLORET Jun. ♃.

Flos parum nutat. *Folia* caulina glabra, magis palmata, et germen supra receptaculum, magis quam in antecedente, ut distinctissima a priore

planta. Videtur tamen affinis S. sibericæ, licet et ab hac distincta. *Variat* caule ramoso. *Willd. l. c. ex Linn. sp. pl.*

An Sax. bulbifera, palmato-lobatis foliis, *Linn.?*— In figura apud *Engl. bot.* 664, germen annulo tumenti superum.

L. foliis reniformibus palmato-pilosis, caule pedunculisque filiformibus. *Linn. sp. pl.* 1. 577. (*sub Saxif.*)—*S. grandiflora. Sternb. sax.* 20 *et* 57. *et t.* 12. *f.* 4. ***siberica.*** 10.

Habitat in Siberia. ♃.

Radiculæ capillares. *Folia* radicalia petiolata, reniformia, septemloba s. palmata : lobis ovatis, pilis raris adspersa, petiolis hirsutis. *Caulis* filiformis, adscendens, semipedalis, debilis, *foliis* 2. s. 3. sessilibus, palmatis. *Pedunculi* terminales, et laterales longissimi, filiformes, bifidi, nudi. *Flos* majusculus, albus inferus. *Linn. l. c.*

Non vidi vivam.

6. TRIDACTYLITES. (Saxifr. *Linn.* &c.)

Calyx erectus. *Petala* 5, alba immunia. *Stamina* filiformia, uniformia. *Germen* inferum, urniforme. *Styli* breves patuli, stigmatibus inconspicuis.

Herbæ annuæ, s. perennes, exiguæ, foliis semper plus minus digitatis et pubescentibus.

Tr. foliis caulinis cuneiformibus trifidis alternis, caule erecto ramoso. *Linn. sp. pl.* (*sub Saxifr. tridactylites*) *vol.* 1. *p.* 578.—*Curtis lond. t.* 28. —*Deutsch. fl. cum icone ?*—*Saxifraga annua. Peyr. p.* 39.—*Saxifraga tridactylites* (*annua*). *Pers. synops.* 1. 490. ***annua.*** 1.

HABITAT supra muros antiquos. ☉.
FLORET vere.

petræa. 2. T. foliis caulinis palmato-tripartitis laciniis subtrifidis, caule ramosissimo laxo. *Linn. sp. pl.* 1. 578. (*sub Saxifr.*)—*Sax. controversa. Sternb. sax.* 43. *t.* 16. *et Sax. Bellardi*, *p.* 20. Sed *Saxifraga Bellardi. Allion. pedem.* 72. *t.* 88. *f.* 1, est mera pygmæa varietas; potiusve eadem imperfecta, monstrosave. H. ♂.
HABITAT in alpibus Sueciæ, &c.

7. SAXIFRAGA. *Linn. gen. pl.*

Calyx patulus erectusve. *Petala* 5, exunguiculata alba immunia. *Stamina* filiformia uniformia. *Germen* semiinferum, inferumve (*E. b.* 501. 794. 2278). *Styli* divaricati, in *stigmatibus* spatulæformibus finientes.

Herbæ perennes, rarissimè annuæ, radice (S. granulata excepta) fibrosa. *Folia* petiolata sensim marcescentia, vel in paucis omnino annua, cæspitosè, sive rosulatim sæpe digesta, lobata, vel palmatifida, pedatifidave; semper carnosula quoque viridia, sæpe ciliatim pubescentia. *Flores* graciliter racemosi vel paniculati, semper albi, vel rarissimè apicem versus externè tincturâ rubedinis. Genus tamen forte dividendum.

* BULBIFERÆ: foliorum axillis radicibusve bulbiferis, foliis lobatis.

granulata. S. foliis caulinis palmato-lobatis, caule racemoso, radice granulata.
1. *Saxifraga granulata. Linn. sp. pl.* 576.—*Engl. bot. t.* 500.—*Deutsch. fl. cum icone.*

Habitat in pratis pascuisve Britannicis, imprimis solo glareoso.

Floret Maio. ♃. Valde variat

α *vulgaris*, floribus mediocribus.

β *grandiflora*, floribus plus triplo majoribus speciosis, foliis magis cucullatis.

γ *leptopetala*, petalis longe angustioribus, longis.

δ *plena*, floribus pulcherrimè plenis.

ε *fibrosa*, radice fibrosa absque granulis, petalis magnis. In horto Rev. D. Bree, spontanea, vel potius a seminibus varietatis β.

Varietates β et γ in comitatu Warwicensi legit spontaneas, mecum quoque communicavit, amiciss. Bree, Saxifrageärum cultor eximius.

ζ *gemmifera*, foliis caulinis palmato-lobatis, caule ramoso, ramis racemosis; radice fibrosa.

Habitat fortè in Anglia.

Floret Maio. ♃.

Communicavit amicus Dom. Aiton, ex regio horto Kewense, nomine Sax. granulatæ.

Flores minores quam in Sax. granulata α, albi, magis approximati, at paniculâ magis ramosâ. *Folia* omnia vernalia post florescentiam marcescentia: nova autumnalia quasi in gemmas foliosas collecta.

S. foliis palmato-lobatis, caulinis sessilibus, caule ramoso bulbifero. *Linn. et Pers. syn.* 1. *p.* 489. —*Moris. sect.* 12. *t.* 9. *f.* 24.—*Deutsch. fl.* *cum icone.* *bulbifera.* 2.

Habitat in Italiæ pratis saxosis, inque Norwegia. ♃.

Nondum vidi vivam.

β *veronicæfolia*, foliis inferioribus subrosulatis cordatis crenatis, petiolis breviusculis dilatatis, caulinis sessilibus inciso-dentatis acutis, caule-

que simplicissimo subvilloso; floribus 2 subcapitatis.

HABITAT in Helvetia et Hispania, radice subtuberosa. Veron. arvens. refert *Persoon l. c.*

γ *arctica*, foliis acutioribus. Ex insula arctica Melville a Dom. Lt. Hopner, R. N. lecta.

* PALMATIFIDÆ, foliis palmato-lobatis altifidis.

altifida. 3. * S. foliis altè palmato-tripartitis, laciniis profundè 2—5-fidis; pedunculis subracemosis divaricantibus; radice fibrosa.

Saxifraga adscendens. Nobis (*exclusis synonymis*) *in Misc. nat.* 162, non aliorum.

OBS. Valde affinis Sax. granulatæ, at omnino distincta, foliorum fissuris atque radice: caulibus magis decumbentibus. In horto amat humidum solum, septentrionali aspectu, absque arborum umbra. Bona atque conspicua species.

HABITAT . . . non in Britannia.

lanceolata. 4. * S. (spear-bracted) foliis glabris ciliatis, rosarum 7-fido-palmatis; stolonum brevissimorum erectorum 5-3-fidis: caulinis lanceolatis: petalis rotundo-obovatis. *Nobis in Synops. succ.* 324.

HABITAT in Europæ alpibus.

β *minor*, foliis glabris ciliatis trifidis integrisque, caulinis imis spatulato-lanceolatis: petalis oblongo-cuneiformibus distinctis. Duplo triplove minor quam α, foliis petiolisque valde diversis. Forte propria species. Vidi apud Dom. Loddiges, ante 1808.

γ *obtusa*, foliis basi cuneiformibus obovatisve, rosarum 1-3 altè dentatis subfissisve: stolonum

sæpè obovatis : caulinis imis ellipticis : petalis orbiculato obovatis.

Vigebat in regio horto Kewense, A. D. 1820. Forte propria species.

** PEDATIFIDÆ, ramis vernalibus demum plus minus decumbentibus, subinde substoloniformibus : foliis præcipuè rosarum reniformi-subpedatifidis.

S. rosarum foliis reniformibus 5-partitis multifidis: caulinis 3-partitis incisis. *Geranioides.* 5.

Sax. Geranioides. Linn. sp. pl. 578.—*Willd. sp. pl* 2. 652.

Habitat in Pyrenæis.

Floret Maio.

Introd. 1770.

Obs. Planta subviscida.

S. foliis 5-partitis lobis multifidis : caulinis digitatis : caule paniculato multifloro : petalis oblongis calyce plus duplo longioribus : stylis innuptis filiformibus. *Ranunculoides.* 6.

Saxifraga irrigua. Sternb. sax. p. 60.

Obs. Planta ante florescentiam omnino Ranunculæformis. Inde nomen, sed diffidentèr mutavi.

Habitat in Tauriæ subalpinis.

S. foliis palmatis 5-partitis, lobis multifidis, acutis, caule adscendente, simplici, paniculato, petalis integris. *Sternb. sax. p.* 48. *t.* 29. *f.* 1. *aquatica.* 7.

Habitat ad rivulas Pyrenæorum.

S. foliis nervosis, cuneato- 3-5-fidis aut palmato- 3-partitis, lobis divisis, caule erecto, viscido, *heterophylla.* 8.

calycis laciniis profundè partitis, petalis calyce duplo majoribus. *Sternb. sax. p.* 50. *t.* 20.
HABITAT in alpibus Pedemontanis.

Ponæ. 9. S. foliis petiolatis, 3- aut 5-partitis, laciniis sub-3-fidis, obtusiusculis, caule ramosissimo, adscendente, petalis calyce 3-plo majoribus emarginatis. *Sternb. sax. p.* 47. *t.* 28.
HABITAT in saxosis Montis Badi.
Non vidi.

pedatifida. 10. S. foliis reniformibus pedatifidè 7-9-lobis: caulinis palmatis, digitatis, linearibusve: caule paniculato: petalis oblongo-obovatis.
Saxifraga pedatifida. Engl. Bot. t. 1278. (excl. Donnii synon.)
HABITAT in Scotiæ montibus.
β *minor*, 2-3-plo minor villosior. Cum α, communicavit amiciss. Bree.

viscosa. 11. * S. rosarum foliis pedatifidis: stolonum erectorum 3-5-fidis: caulium trifidis lanceolatisque trinerviis: caulibus hirsutis. *Nob. in Misc. nat.* 164.
Præcedenti affinis, at longè minor et subviscosa.
HABITAT . . . .

quinquefida. 12. * S. stolonum sub-erectorum foliis 5-fidis, laciniis lineari-lanceolatis, lineola longitudinaliter subexaratis. *Nobis in Misc. nat. p.* 163.—et inde in *Donn's cant. ed.* 5. 107.
HABITAT in Scotiæ montibus, a Dom. Geo. Donn ante annum 1801 detecta.
A penultima longè recedit, et propria species. Rosarum folia 5-11-pedatifida. Priore duplo major, et omnino distincta.

*** CERATOPHYLLÆ, rosarum foliis trifidis 5-fidisve, lobis trifidis linearibus patulis, sæpe duris et viscidè pubescentibus, nervis senectis plus minus induratè elevatis.

S. glabra, foliis radicalibus trilobis, lobis multifidis: laciniis lateralibus falcatis; caule paniculato, calycibus fucatis. *Ait. hort. kew. ed.* 2. *v.* 3. *p.* 70. *cerato-phylla.* 13.

Habitat in Hispania.

S. foliis (*digitato-*) 5-lobis, lobis elongatis, linearibus, obtusis, staminibus longitudine calycis, pistillis subulatis. *Sternb. sax. p.* 51. *penta-dactylis.* 14.

Habitat in umbrosis Pyrenæorum.

S. foliis gummiferis petiolatis 5-lobis, lobis integris subpaniculatis. *Sternb. sax. p.* 50. *ladani-fera.* 15.

Habitat in Pyrenæis altioribus.

S. foliis petiolatis subviscidis, tripartitis, laciniis linearibus, carinatis bi-trifidis, lacinulis mucronulatis, caule subfolioso, nudo, paniculato, petalis obtusis integerrimis. *Sternb. sax. p.* 49. *trifur-cata.* 16.

Habitat in Hispania.
Non vidi.

S. foliis 3-5-lobis, lobis obtusis una cum caule pubescentibus, floribus capitatis. *Sternb. sax. p.* 53. *pubes-cens.* 17.

Habitat in alpibus Pyrenæorum.

S. foliis radicalibus reniformi-cordatis, palmato-partitis, laciniis linearibus, caulinis subsessilibus, cuneatis, tri- vel 6-partitis. *Sternb. sax. p.* 51. *t.* 21. *dichoto-ma.* 18.

Habitat in Hispania.

venosa. 19. * S. subacaulis, foliis simplicibus trifidisque nervosis, scapo 1-floro folioso, foliis scapi linearibus integris.

Habui ex arctica Insula Melville, a Dom. Lt. Hopner, R.N. lectam, communicatam.

Obs. Flores solitarii, et majores fere duplo quam in priore.

moschata. 20. S. foliis radicalibus aggregatis, linearibus, integris trifidisque, una cum caule glutinosis, hirsutis, floribus longè pedunculatis. *Sternb. sax.* 41. *t.* 11, *a.f.* 3.

Lapeyrousii. 21. S. foliis palmatis, enerviis, glandulosis, petiolis basi marginatis, floribus tubulosis. *Sternb. sax. p.* 51.

Habitat in alpibus Pyrenaicis.

Non vidi. An hujus sectionis?

nervosa. 22. S. foliis lobatis utrinque nervosis, calycibus globosis, corollis patentibus, pistillis subulatis. *Pers. syn.* 1. 490.—*Sternb. sax. p.* 52.

Obs. Flores subpaniculati, foliis bracteaceis sæpe tricuspidatis.

β *exarata*, caule assurgente, foliis digitatis, segmentis obtusis, petalisque supernè exaratis.

Sax. exarata. Vill. delph. 3. *p.* 674.—*Sax. nervosa*, β (*minor*). *Sternb. sax. p.* 52.

Obs. Flores subpaniculati, foliis bracteaceis 5-3-cuspidatis.

*** QUINQUEFIDÆ, rosarum foliis sæpe 5-fidis, rarius 3-fidis 7-fidisve; nunquam rectim pedatifidis.

Ajugifolia. 23. S. foliis radicalibus reniformibus palmato-quinquepartitis, caulinis linearibus indivisis, cauli-

bus adscendentibus multifloris. *Linn. sp. pl.* 1. 578.

β *Aitonis*, foliis stolonum prostatorum 3-5-fidis, obsoletè subpedatis, laciniis lineari-lanceolatis aristatis, petiolis duplo longioribus.

Saxifraga ajugifolia. Ait. kew. ed. 2. *v.* 3. *p.* 70. —*Nobis in Misc. nat. p.* 163.—*Vix Linnæi.*

HABITAT in Galloprovinciæ montibus.

Circa A. D. 1790, Curtisius hanc varietatem accepit e regio horto Kewense, nomine S. ajugifolia. Ego a Curtisio circa 1793.

γ *longipes*, plus duplo major, petiolis prælongis. A Rev. G. T. Bree.

S. rosarum foliis 5-fidis, stolonum trifidis, laciniis lanceolatis amplis; petalis oblongo-obovatis. *hibernica.* 24.

HABITAT in Hiberniæ montibus, ubi maximè variabilem legit amiciss. Bree.

α *major*, caulibus laxe effusis, subpedalibus: varietatibus cæteris duplo major.

β *Smithii*, duplo minor, sive triplo tenuior. *Sax. hirta. Engl. bot. t.* 2291.—*Nec nobis in Misc. nat.*; quæ nondum spontanea in Britannia.

γ *media*, nodis duplo brevioribus, foliis mediocribus in latitudine.

δ *incurva*, longe brevior, foliis subincurvis 9-5-fidis, petiolis latis. *Sax. incurva hortorum.*

ε *pusilla*, caulibus triplo brevioribus quam γ, foliisque angustioribus quam δ.

ζ *perpusilla*, acaulis; omnino humilior, densior, rosarum foliis magis divisis, caule nudiusculo subbifloro.

Saxifraga cespitosa. Engl. bot. t. 794, et inde *Nobis in Misc. nat.* 166. Sed nullo modo Linnæi Herbarii, quod continet exempla plurima

S. cespitosæ veræ, uno horum solùm a ceteris discrepante, altiore magisque ciliato.

HABITANT omnes supradictæ varietates subspeciesve in Hiberniæ montibus, teste Dom. G. T. Bree aliisque. Sed nondum in Scotia, Cambriave.

grœnlandica. 25. S. foliis caulinis palmato-multifidis sparsis: laciniis acutis, caule erecto. *Linn. sp. pl.* 578, excluso Dilleniano synonymo, quod repræsentat Saxifragam veram muscoidem.

β *arctica,* omnino glabrior, e Insulà arctica Melville, a Dom. Lt. Hopner lecta.

quinquedens. 26. * S. nuda; stolonum virgatorum foliis 5-3-fidis remotis, longitudine internodiorum, laciniis subulatis aristatis æquantibus ciliatos petiolos: petalis orbicularibus.

Saxifraga quinquedens. Nobis in Synops. succ. 325.

HABITAT.. Nondum in Britannia. Affinis S. Hibernicæ, at gracilior, magisve virgata, et differt omnino petalis amplissimis.

lævis. 27. * S. rosarum foliis 5-fidis: stolonum prostratorum 5-3-fidis, petiolis ciliatis, petalis amplis.

Sax. lævis. Nob. in Misc. nat. 165.—*Sax. palmata. Deutsch. flora? cum icone:* sed non *S. palmata Engl. bot.* 455.

HABITAT prope Settle, in Com. Ebor., ubi olim invenit D. Curtis, et communicavit. Nuper detecta apud montem Hellvellyn, a Rev. Dom. G. T. Bree. Bona species.

peruviana. 28. S. foliis cuneiformi- 3- vel 5-partitis, glanduloso-pubescentibus, floribus subternis, terminalibus. *Sternb. sax.* 55. *t.* 22.

Habitat in Andibus Peruvianis.
Non vidi.

S. foliis spathulatis, integris et cuneato-tridentatis, in petiolum decurrentibus, subtus scabriusculis, caule paucifloro, petalis calyces campanulatos vix superantibus. *Sternb. sax.* 42. *t.* 11. a. *f.* 5. *depressa.* 29.

S. foliis palmato-5-fidis 3-fidisque, laciniis linearibus, piloso-mucronulatis, una cum caule adscendente villosissimis, surculis cespitosis, diffusis, adscendentibus. *Sternb. sax.* 55. *decipiens.* 30.

Habitat in montibus Germaniæ, Angliæ. Maximè variat, at semper piloso-canescens.

α *decipens. Sternb. sax. decipiens, t.* 23.

β *palmata. Sax. palmata,* foliis palmatis 5-fidis trifidisque, caule folioso paniculato, petalis subrotundis. *Engl. bot.* 455.—*Nob. in Misc. nat.* 164.

Obs. Planta brevior, magisque compacta, quam α, et fere acaulis cespitosa.

γ *canescens; Sax. canescens,* foliis stolonum cuneatis semper 3-cuspidatis hirtis, caulinorum supremorum sæpius integris: petalis ellipticis non imbricatis. *Nob. in Synops. succ.* 325.

δ *hirsuta; Sax. hirsuta,* foliis stolonum trifidis, petiolis longitudine internodiorum, petalis ovalibus non imbricatis. *Nob. in Synops. succ.* 325.—Quam prioribus varietatibus minus cespitosa, surculis gracilioribus, triplo longioribus.

ε *hybrida; Sax. hybrida,* foliis stolonum trifidis, caulinis lanceolatis, caulibus (surculis) hirto-lanatis. *Nob. in Misc. nat. p.* 164. Var. δ. similis at duplo robustior, stolonum foliis simplicioribus, petalis valde latioribus imbricantibus.

ζ *Sternbergii; Sax. Sternbergii,* foliis palmatis, 5-fidis 3-fidisque, laciniis sublinearibus, obtusis,

inermibus, ciliatis, glabris, caule adscendente superne piloso, surculis cespitosis, rigidulis. *Sternb. sax. p.* 56. *t.* 24.

Non vidi, sed simillima Sax. hibernicæ, *α, majori* supra, et fere eadem, at diversis petalis.

η controversa; Sax. controversa hortorum Londinensium, nec Sternbergii.—Præced. var. similis, sed brevior, foliis longe obtusioribus, sive obtusissimis.

θ condensata; Sax. condensata hortorum. Ultimæ var. statura, at foliis duplo angustioribus acutis. An var. S. hibernicæ? E siccis *η* et *θ* descripsi.

hirta. 31. * S. foliis stolonum caulinisque imis trifidis, laciniis margine ciliatis, paginis præcipuè subtus glabris. *Nob. in Misc. nat. p.* 164.

Species bona, petalis orbiculato-ovatis albis triplilinea virescente. An affinior S. quinquefidæ?

Habitat in Europa, non in Britannia.

platypetala. 32. S. rosarum foliis 5-fidis: stolonum 3-fidis, rariùs integris, laciniis acuminatis: floribus crateriformibus, petalis oblongo-orbicularibus imbricantibus. *Sax. platypetala. Engl. bot.* 2276.

Habitat in Cambria, insuper Snowdon, ubi legit amicissimus Bree. Bona species. Petala amplissima alba, altè ad latera imbricantia, nervis virescentibus fere ad apices obtusissimas.

Hypnoides. 33. S. foliis 7-5-fidis integrisque, petalis oblongis obovatisve, non imbricantibus. Maxime variat.

α Sax. hypnoides, foliis caulinis linearibus integris trifidisve, stolonibus procumbentibus, caule erecto nudiusculo. *Linn. sp. pl.* 579.—*Engl. bot.* 454.—*S. densa;* stolonum foliis subulatis semi-teretiusculis, rosarum trifidis. *Nobis in Misc. nat.* 166.

β *angustifolia ; S. angustifolia. Herb. Banks,* teste lynceo Dicksono.—Et inde S. angustifolia stolonum foliis lineari-lanceolatis imis rarissime, rosarum sæpius trifidis. *Nob. in Misc. nat.* 166.

HABITAT in Westmorlandia in montosis propè Brough.

γ *leptophylla ; S. leptophylla,* procumbens glabra, foliis longè petiolatis 3-fidis 5-fidisque, laciniis linearibus divaricatis.

δ *Aitoni ; S. hypnoides* β, procumbens foliis linearibus integris 3-fidis et 5-fidis. *Linn. sp. pl.* 579.—S. hypnoides. *Ait. kew. ed.* 1. *v.* 2. *p.* 83, et inde Angliæ omnium hortorum.

HABITAT prope Hessleton Gill, in Craven, ubi legit amicissimus Bree, at forte ex horto.

OBS. I have known this plant from a boy, and upward, in almost every garden, by the name of Common Ladies' Cushion, or Moss Saxifrage; and it is nearly or quite the plant called *S. hypnoides* in the *Linn. herb.*, although it is var. β. of *Sp. pl. l. c.*

ε *spatulata ;* stolonum foliis summis spatulato-linearibus cuspidatis, imis 2-3-cuspidatis, rosarum 5-fidis. *S. spatulata. Nob. in Misc. nat. p.* 165.

ζ *latifida ;* foliis lanceolatis, 3-fidisve ; caulinis intermediis obovato-cuneatis acuminatis : floribus subpaniculatis, petalis subrotundo-obovatis imbricatis.

S. latifida. Nob. in Synops. succ. p. 325.

Subspecies insignis, floribus rarissimis infernè subsericeo-albis.

η *rhodopetala ;* foliis simplicibus 3-5-fidisve, petalis fere omnino (basive excepto) roseis.

E septentrionalibus Angliæ montibus, communicavit amicissimus Bree. Varietas pulchella.

θ *recurvula;* (recurving cupped) rosarum foliis 5-fidis minutis, stolonum profundè trifidis, laciniis lineari-acuminatis: foliolis calycinis deltoideo-acuminatis patenti-recurvantibus.

Habitat in Cambriæ Cym Idwell, ubi legit amicissimus Bree.

Subspecies insignis; dignoscitur foliis altè 3-fidis laciniis (omnium fortè) tenuissimis; foliolis calycinis patenti-recurvantibus.

ι *aristata;* sordidè virescens; rosarum foliis carnosulis 5-fidis, stolonum ramiformium glomeratorum trifidis, laciniis hirto-ciliatis, aristatis.

E Scotiæ montibus communicavit amicissimus Bree. Varietas insignis.

κ *septifida; S. septifida,* stolonum brevium prostratorum 7-3-fidis confertis ciliatis, laciniis linearibus subcuspidatis; petiolis longitudine internodiorum. *S. septifida. Nob. in Syn. succ.* 324.

globulifera. 34. S. foliis radicalibus imis spathulatis integerrimis, superioribus palmato- 3- aut 5-fidis, in ramo florifero remotis, linearibus. *Sternb. sax. p.* 45.

Habitat in cacumine Atlantis.

Non vidi.

An a priore satis distincta?

trifida. 35. * S. foliis rosarum stolonumque suberectorum trifidis, laciniis petiolisque nudis ciliatis; segmentis calycum parabolicis.

S. trifida. Nob. in Misc. nat. p. 165.

Habitat in Cambriæ montibus.

Obs. Foliorum laciniis lateralibus subulatis petiolo triplo brevioribus. Rosarum folia rarius 5-fida. *Flores* racemoso-paniculati. *Petala* subrotundo-ovata ampla.

β *elongella; S. elongella.* Leaves in three or five

bristle-pointed segments; their base elongated; the uppermost linear and undivided. Flower-stalks very long and naked. *Engl bot. t.* 2277.
HABITAT in Scotiæ montibus.
γ tridens; S. tridens, foliis ciliatis, rosarum 5-fidis; stolonum brevium suberectorum trifidis confertis; laciniis linearibus calycumque segmentis acutis: petiolis internodiis brevioribus: petalis elliptico-oblongis distinctis. *Nobis in Syn. succ.* 324.
HABITAT in Scotiæ montibus.

*** INTEGRIFOLIÆ: spuriæ: foliis integris primave specie subinde 1-3-dentatis.

S. foliis lanceolatis obtusis pilosis, caule nudo bifloro. *Linn. sp. pl.* 571. *Androsacea.*
OBS. *Herba* acaulis exigua, radice perenni, foliis integris, scapoque fere ut in Androsace villosâ. 36.
β trifida, subcaulescens; foliis plerumque trifidis. *Sternb. sax. t.* 11. a. *f.* 4.
HABITAT in Pyrenæis.
Var. *β.* non vidi. An distincta?

S. foliis basilaribus densissime congestis, oblongis, obtusis, una cum caule pilosis, petalis subretusis, citrinis, calyces excedentibus. *Sternb. sax.* 28. *t.* 7. *f.* 3. *planifolia.* 37.
HABITAT in Pyrenæis.
An hujus generis?

S. foliis basilaribus confertis, lineari-lanceolatis, piloso-ciliatis, floribus longè pedunculatis, petalis ovatis acutis, calyce brevioribus. *Sternb. sax. p.* 27. *t.* 7. *f.* 2. a. *Sedoides.* 38.

β *uniflora*. *Sternb. sax. p.* 27. *t.* 7. *f.* 2. b.
Habitat in Pyrenaicis.

Seguieri. 39. S.? subacaulis, foliis lineari-lanceolatis longis: scapo subnudo 1-2-floro, petalis oblongo-linearibus luteis.
Saxifraga planifolia, γ Seguieri. *Sternb. sax. p.* 28. *t.* 9. b. *f.* 4.
Habitat in Pyrenæis. Vix hujus generis. *Exemp. sicc.* solum vidi hujus, duarumque præcedentium.

tenera. 40. S. foliis mollibus integerrimis, oblongis, obtusiusculis, subhirsutis, radicalibus aggregatis, caulinis alternis, caule simplici paucifloro: petalis latè cuneatis retusis.
Sax. planifolia β, *tenera*. *Sternb. sax.* 28. *t.* 9. b. *f.* 3.
Non vidi; sed ob petalorum formam distincta.

Hohenwarti. 41. S.? foliis basilaribus confertis, lanceolatis, piloso-mucronatis, caule folioso, petalis linearibus, longitudine calycis, antheris roseis.
Sax. Hohenwarti. *Sternb. sax. p.* 26. *t.* 7. *f. media*.
Habitat in Carinthiæ alpibus.
β petalis antherisque purpurascentibus. *Sternb. l. c. t.* 19. b. *f.* 2.
Non vidi. Penultimæ valde affinis. Sed vix hujus generis.

8. MUSCARIA. (Saxifraga *Linn.* &c.)

Germen inferum, superne depressum. *Styli* patuli, stigmatibus spatulæformibus. *Petala* angusta distantia lutea.
Herbæ exiguæ omnes, cespitosæ; foliis integris trifidisve linearibus.

* VERÆ.

M. foliis rosarum aggregatis trifidis, scapo gracili suberecto paucifloro, floribus citrinis sessilibus. *muscoides.* 1.

S. muscoides. Jacq. misc. nat. 2. *p.* 128.—*Nobis in Misc. nat. p.* 167.

S. tridactylites grœnlandica, caulibus valde foliosis. Dill. elth. t. 237. *f.* 329. *bona.*

HABITAT in Scotiæ montibus. D. Donn.

Folia sæpius 3-fida, rarius integra, linearia obtusa.

β *elongella,* foliis remotè ciliàtis, rosarum sæpe trifidis, cæteris linearibus integris, caule pubescente subbifloro.

S. elongella. Nob. in Misc. nat. p. 167.—*Donn's hort. cant. ed.* 5. 107. Non *Engl. bot.*

S. Muscoides. Deutsch. fl. cum icone.

HABITAT in Westmorlandia, et, ni fallor, etiam insuper Ingleboro.

FLORET Maio. ♃.

Folia longiora graciliora tenuioraque, sæpiusque integra, latitudine semilineari, longitudine 6-7-linearibus, pilis glanduliferis remote ciliata, certo situ subtus minime papuloso-micantia. *Caules* substricti subaphylli. *Flores* præcedentis, at tenuiores.

OBS. *S. elongella. Engl. bot.* 2277, longè diversa est.

M. foliis stolonum lineari-lanceolatis obtusis subciliatis, rosarum trifidis, racemo valde folioso, 2-6-floro, pubescente. *cæspitosa.* 2.

S. cæspitosa. Linn. sp. pl. et ejus herb.

S. pygmæa nobis in Misc. nat. p. 168.

S. moschata. Engl. bot. t. 2314.

HABITAT in Scotiæ montibus. Dom. Donn.

FLORET Maio. ♃.

Præcedente plus duplo minor.
Scapi unciales densissime cæspitosi. *Folia* sæpe latiora, sed fere duplo breviora obtusè sublanceolata nec linearia. *Calycis* laciniæ petalaque latiora brevioraque.

acaulis. 3. M. foliis trifidis integrisque, densissime imbricatis, scapis 6-13-linearibus filiformibus subunifloris, superne subfoliosis.
S. acaulis. Seringe in Naturwissenshaftlicher, No. 10. *p.* 68.
Habitat prope M. Fouly. Vide *l. c.*
Dua exempla sicca nativa trientalia a Ph. Thomas, solum vidi.
Forte mera varietas præcedentis.
An S. muscoides γ, *uniflora,* operis super citati, p. 69?

magellanica. 4. * M.? foliis congestis, viscoso-pubescentibus simplicibus, floribus subbinatis subsessilibus.
S. magellanica. Sternb. sax. 39. *t.* 11. *f.* 1.
S. magellanica. Pers. syn. 1. 491.
Habitat ad Fretum magellanicum in alpibus.
Planta cæspitosa, petal. obovata. *Pers. l. c.*—An hujus generis?

** AMBIGUÆ.

crocea. 5. M.? foliis integris trifidisque, pedunculis erectis elongatis foliolosis: terminali brevissimo, petalis calycem vix æquantibus.
S. crocea. Sering. in loco supra citato, p. 69.
Habitat in Sabaudæ Australioris alpibus.

atropurpurea. 6. M.? foliis integris trifidisque, aut fere omnibus integris, linearibus angustis, petalis (linearibus) atropurpureis.

S. moschata, γ, atropurpurea. *Sternb. sax.* 41. *t.* 11. b. *f.* 2.
HABITAT in Carniola.
Non vidi.
Planta singularis ob tenuitatem coloremque petalorum.

M. ? foliis lanceolato-ovatis, integris, trifidisque, caule aphyllo, unifloro, petalis acutis linearibus citrinis. *stenopetala.* 7.
S. aphylla. *Sternb. sax.* 41. *t.* 11. b. *f.* 3.—*S. stenopetala. Seringe in Naturwissenschaftlicher, No.* 10. *p.* 70.
HABITAT in Austriæ alpibus.
Præsingularis ob foliorum latitudinem, tenuitatemque petalorum.
Non vidi.

9. LEPTASEA. Leptanthidem nominaveram olim: nunc voco Leptaseam, propter nomen Leptanthes in Sprengel, &c. (Sax. *Linn. &c.*)

Calyx horizontalis planus, laciniis oblongo-parabolicis. *Petala* angusta oblongo-lingulata remota exunguiculata aurea. *Germen* superum depressum.
Herbæ perennes, rigidæ, parvæ.

L. foliis caulinis linearibus alternis dentato-ciliatis, caule decumbente. *Aizoides.* 1.
Sax. Aizoides. Sm. fl. brit. 452.—*Engl. bot. t.* 39.—*Fl. dan. t.* 72.—*Schmidel's Gesner, fig.* 4, *et forte* 5.
Sax. autumnalis. Linn. sp. pl. 575.—*Deutsch. fl. cum icone.*
β *integra*; foliis sæpe integris linearibus obtusis.

Sax. Aizoides. Linn. sp. pl. 576.
HABITAT in Britanniæ montibus.
FLORET Jul.—Aug. ♃.
γ *crocea*, floribus croceis, aurantiisve, caulibus elongatis.

tricuspidata. 2. L. ? foliis radicalibus aggregatis cuneiformibus ciliatis acute tridentatis, caule adscendente racemoso, petalis lanceolatis calyce triplo longioribus.
Sax. tricuspidata. Fl. dan. t. 976.
HABITAT in Grœnlandia.
Exemp. sicc. sine flore, a Lt. Hopner lecta prope Baffin's bay, et mecum communicata, solum vidi. Forte alii generis.

10. HIRCULUS. *Hirculus* Clusii. Saxifraga *Linn. &c.*

Calyx erectus laciniis sub-ellipticis. *Germen* grande, subovatum, superum. *Stigmata* grandia, rotundata. *Petala* magna (inter affines) exunguiculata elliptica aurea, " basi lacuna nectarifera rima bivalvis apicibus acutis instructa." *L.*
Herbæ humiles palustres perennes, ramis sæpe decumbentibus, foliis marcescenti-deciduis.

Ranunculoides. 1. H. hirtus ; foliis lanceolatis, longe petiolatis, surculis decumbentibus, radice repente.
Sax. Hirculus. Linn. sp. pl. 576.—*Engl. b.* 1009.—*Fl. dan.* 200.—*Fl. lond.* 6. 26.—*Gmel. fl. sib.* 4. 165. *t.* 65. *f.* 3.—*Deutsch. fl. cum icone.*
HABITAT in Angliæ palustribus, at rarissimè.
Folia viridia rarius ciliata. *Caules* floriferi erecti,

foliis alternis pedetentim minoribus, subbiflori, fusco-pilosi.

H. nudus : foliis radicalibus spatuliformibus, caule folioso unifloro : surculis erectis. *propinquus.* 2.
Sax. propinqua. R. Brown, in Ross's voyage.
Exempla tria sicca, in Insula arctica Melville lecta a Lt. Hopner (et cum sequente mecum communicata) solum vidi. Bona et formosa species, floribus intensè luteis solitariis.
Radix habet fibras longas simpliciores.
HABITAT cum Hypno rufescente, intermixto.

H. foliis obovatis subsessilibus ciliatis, sarmentis longissimis arcuatis filiformibus, apice solum foliosis et radicantibus. *flagellaris.* 3.
Sax. flagellaris. Sternb. sax. 25. *t.* 6. Figura parva sine plantulis radicantibus apice surculorum flagelliformium.
HABITAT cum priore, at formosior, et præsingularis.
Radix simplex, fibrosa. *Caulis* valde foliosus biflorus. *Flores* magni intense lutei, petalis subrotunde obovatis.
An Sax. setigera, (a Browneo citata) fl. parv. alb. *Pursh Americ. p.* 312 ?

11. CILIARIA. (Saxifraga *Linn.* &c.)

Calyx laciniis horizontalibus concavis. *Petala* orbiculato-ovata ampla unguiculata. *Germen* superum conicum rostris s. stigmatibus brevibus, innuptis conniventibus.
Herbæ perennes : alpinæ, prostratæ, omnino rigidæ foliis minutis sublineari-lanceolatis confertis, in omni specie plus minus ciliato-denticulatis. *Flores* albi concinni.

aspera. 1. C. foliis caulinis lanceolatis alternis ciliatis, caulibus procumbentibus.

Sax. aspera. Linn. sp. pl. 575.—*Willd. sp. pl.* 2. 649.—*Pers. syn.* 1. 489.—*Sternb. sax. t.* 8. *f.* 1.

HABITAT in Europæ alpibus.

FLORET Aug. ♃.

INTROD. 1748.

OBS. Caules rubri. *Flores* superi, 3, s. 4, albidi. *Petala* unguiculata ampla obtusa basi imbricantia.

β *brevinoda* (close-jointed), caulium viridiorum nodis triplo magis approximatis: foliis cum surculis caules tegentibus, pallidioribus magis ciliatis: petalis basi distinctis.

Forte propria species.

Communicavit amiciss. Bree.

bryoides. 2. C. foliis lanceolatis mucronatis margine cartilagineis ciliatis, caule nudiusculo paucifloro, calycibus obtusis.

Sax. bryoides. Willd. sp. pl. 2. 643.—*Jacq. misc. nat.* 2. *p.* 49. *t.* 5. *f.* 1.—*Sternb. sax. t.* 8. *f.* 2. —*Scop. carn. No.* 497. *t.* 15.—*Deutsch. fl. cum icone.*

HABITAT in alpibus Europæis. ♃.

INTROD. 1775.

Folia serrata, basi ciliata, serraturis apice sæpe callosis. *Folia* radicalia in orbem digesta, caulina 5, s. 6, alterna, tenera. *Caulis* pubescens. *Flores* 1, s. pauci; petala flava, maculis fulvis. *Willd. l. c.*

OBS. Siccatam solum vidi. *Caulis* foliis oblongo-lanceolatis alternis 3, 8, munitus. *Germina* magna geminata apicibus erectis grossis stigmate obtuso coronatis.

C. ? foliis imbricatis subulatis ciliatis spinosis, caule subnudo multifloro. *bronchialis.* 3.

Sax. bronchialis. *Willd. sp. pl.* 2. 644.—*Gmel. fl. sib.* 4. *p.* 164. *t.* 65. *f.* 2.

Habitat in Siberia.

Cult. apud Dom. Jenkin's nursery, A. D. 1819, at sine flore postquam periit. Sed nunc rursum viget cum amiciss. Bree, a seminibus Domino Hunneman (per me) missis.

Stolones oblongi confertim imbricati: foliis planis subulatis, mucronato-spinosis spinoso-ciliatis. Caulis altus nudiusculus: foliis aliquot minimis mucronatis margine lævibus. Panicula parva. *Willd. l. c.*

Seminales plantas solum vidi.

12. ANTIPHYLLA. (Saxifraga *Linn. &c.*)

Calyx patulus segmentis parabolico-ellipticis. *Germen* semiinferum. *Styli* longi grossè subulati, extùs convexi, intùs plani, erecto-approximati in pyramidalem formam, basi albi confluentes, supernè rubri. *Stigmata* inconspicua. *Filamenta* valida planiuscula, erecta, supernè parum attenuata, rubicunda. *Petala* ampla rubicunda, imbricantia.

Herbæ ramis perennantibus, foliolis oppositis (rarissimè alternis) ciliatis carnosulis, apice subindè retusis, (puncto pertuso) fere tectis.

A. foliis confertis ovatis oppositis (subalternisque) staminibus pistillisque corolla brevioribus. *cærulea.* 1. *

Sax. cærulea. *Lapeyr. sax. p.* 36. *t.* 16.—*Pers. syn.* 1. 488.—*S. oppositifolia.* *Engl. bot. t.* 9.—*Deutsch. fl. icon. x.* 2.

Habitat in alpibus, super saxa, prope nives et

gelu. In surculis sterilibus folia alterna etiam vidi. *Pers. l. c.*

Obs. *Flores* siccati cærulescentes.

biflora. 2. * A. (rosea) foliis obovatis, omnibus oppositis distantibus, corollis pistillisque calycem duplo superantibus.

Sax. biflora. Lapeyr. l. c. p. 37. *t.* 18.—*Pers. syn.* 1. 488.—*Allion. pedem. n.* 1530. *t.* 21. *f.* 1.—*Deutsch. fl. cum icone.*

Habitat cum priore.

Flores 1—3, rosei. *Pers. l. c.*

retusa. 3. A. foliis oppositis imbricatis ciliatis cuneato-obovatis apice triangulari-retusis puncto pertuso succulentis.

Sax. retusa. Lapeyr. p. 38. *t.* 18.—*Deutsch. fl. icon. X.* 2.

Sax. purpurea. Allion. pedem. n. 1531. *t.* 21. *f.* 2.

Habitat in Britanniæ montibus variis.

Floret Feb. Mar. ♃.

Hæc species hujus generis solum nobis spontanea viget. Variat paululum in magnitudine foliorum petalorumque. *Flores* semper saturate rubicundi speciosi. *Folia* opposita succulenta supernè ciliis validis apiceque retusis, maximè simulant (lente) folia Mesembryanthemi tigrini! Singulum etiam gerit punctum præsingulare pertusum!

spathulata. 4. * A. foliis spathulatis obtusis ciliatis, caule prostrato, pedunculis axillaribus unifloris.

Sax. spathulata. Desf. Atlant. 1. *p.* 342. *t.* 96. *f.* 2.—*Pers. syn.* 1. 489.

Habitat in cacum. Atlantis.

Cal. ciliatus. *Cor.* alba obovata. *Pers. l. c.*

β *arctica.* Floribus cæruleo-purpurascentibus. Ex Insula arctica Melville, a Dom. Lt. Hopner collecta et communicata. Forte propria species.

** REFLEXO-CALYCATÆ, laciniis calycinis reflexis, scapis fere aphyllis.

† SESSILIFOLIÆ, corollis regularibus.

13. MICRANTHES. *Nob. in Syn. succ.* 321.—Saxifraga (*Linn. &c.*)

Calyx laciniis 5 arctissimè refractis. *Corolla* 5-petala, petalis remotis loratis exunguiculatis. *Filamenta* uniformia compresso-plana, petalis breviora.

Herbæ perennes. *Folia* radicalia sessilia orbiculatim humi adpressa, (seniora sublorea) lanceolata denticulata viridia, pilis minutis sæpius ciliaribus lente singulariter articulatis. *Flores* glomerato-paniculati præexigui virescentes immunes. *Scapi* fistulosi erecti bipedales.

M. foliis lanceolatis repando-denticulatis venosis, margine subtusque autumno subpubescentibus; pedunculis unifloris aggregatis. *pensylvanica.* 1.

Sax. pensylvanica. Linn. sp. pl. 1. 571.—*Nec Willdenovii neque herb. Linn., quæ foliis gaudet undique hirsutulis.—Dill. elth.* 337. *t.* 253. *f.* 323, *bona.*

HABITAT in Pensylvania.

INTROD. 1732, s. ante, *Dill. l. c.*

FLORET Mai.—Jun. ♃.

M. foliis oblongo-lanceolatis glabris repando-dentatis, caule nudo, pedunculis aggregatis. *Hieracifolia.* 2.

Sax. hieracifolia. Willd. sp. pl. 2. 640.
Micranthus semipubescens. Nob. in Synops. succ. 321 ?
Obs. In nostra, folia lanceolata, obtusa subavenia crassiuscula, in autumno subindè subtus subpubescentia. Cult. a me 1790.
Habitat in alpibus Carpaticis.
Folia oblongo-lanceolata repando-dentata utrinque glabra, &c. *Pedunculi* 1-flori 4-6 aggregati. *Flores* superiores subsessiles magis conferti, &c. *Willd. l. c.*

hirta. M. foliis lanceolatis hirsutis, floribus subcapitatis.
3. *Sax. hieracifolia. Donn. hort. cantab.—Inde ex*
* *ipso accepi.—S. pensylvanica. Willd. sp. pl. quoque herb. Linn.*
Habitat in America Boreali.
Floret Mai. Jun. ♃.
Introd. 1769.
Obs. Hæce tres facilè dignoscuntur, prima foliorum venis, ultima hirsutie.

†† Decurrentes, foliis alatim decurrenter petiolatis; petalis 2, inferioribus cæteris plus minus longioribus.

14. AULAXIS. (Saxifraga *Linn. &c.*)

Calyx laciniis 5, refractis. *Corolla* irregularis, petalis 2 inferioribus elongatis divaricantibus, gracilioribus. *Stamina* basi gracillima, supernè angustè lanceolato-linearia. *Capsulæ* superæ altè bipartitæ, basi solùm coalitæ, in rostra acuta subdivaricata progredientes. *Stigmata* ferè nulla. *Semina* lanceolato-elliptica incurva (lente)

subrugulosa sulcata porcatave, porcis moniliformibus.

Herbæ Micranthidis habitu, foliis lanceolatis subduplicatim inciso-denticulatis, supra viridibus, subtus pallidioribus. *Scapi* fistulosi. *Flores* graciliter paniculati parvi albi, rubro minutè punctati.

A. foliis hirtis subduplicatim argute serratis. *Micranthifolia.*
Robertsonia Micranthifolia, foliis alatim petiolatis lanceolato-oblongis obtusis altè dentato-serratis hirtis, petalis macula flava, filamentis pedunculatis, stylis subulatis acutis. *Nobis in Synops. succ. p.* 322.—*Sax. erosa. Pursh Americ.* 311. 1. *
HABITAT in Carolina.
FLORET Mai. copiosè. ♃.
INTROD. Dom. Frazer, et communicavit anno 1810.

A. foliis nudis, altè duplicatim inciso-denticulatis. *nuda.*
HABITAT . . . . 2.
FLORET Mai. ♃. *
INTROD. ante 1813.
Communicavit Dom. Cowper.

15. SPATULARIA. (Saxifraga *Aliorum.*)

Calycis laciniæ 5 arctissimè refractæ, oblongo-ovatæ concavæ. *Corolla* irregularis alba, *petalis* pedunculatis, 3 superioribus angustè deltoideis, basi maculâ geminatâ flavâ : 2 inferioribus altiùs pedunculatis descendentibus lanceolatis immunibus. *Germen* superum niveum rostris erectis approximatis obtusè acuminatis (denique paululum divergentibus) fere absque pistillo stigmateve. *Stamina* longa filiformia divergentia

deorsum paululum crassiora, petalis breviora. *Antheræ* innuptæ trapeziformi-cordatæ parvæ rubræ (nuptas non examinavi). *Semina* oblonga, medio parum crassiora minuta.

Herbæ Carolinianæ Europeæve perennes; *scapis* fistulosis copiosè ac gracilitèr paniculatis dichotomis hirtis: *foliis* lanceolatis cuneiformibus argutè dentatis hirtis.

* VERÆ : RECTIROSTRATÆ.

leucanthemifolia. 1. S. paniculis divaricato-dichotomis gracilibus, corollis valde irregularibus.

Saxifraga leucanthemifolia, hirsutissima, foliis elongato-spatulatis, acute dentatis, caulibus divaricato-dichotomis, paniculis capillaribus, petalis inæqualibus. Pers. syn. 1. 488.

Habitat in Carolina.

Floret Jul. Oct.

Introd. ante 1812.

Communicavit Dom. Aiton.

Clusii. 2. S. foliis radicalibus oblongis petiolatis dentatis, scapo ramoso, petalis inæqualibus; lobis calycinis nervosis. *Lam. et Decand. syn. p.* 319; *et Fl. fr. tom.* 4. *p.* 1. *fl.* 380. sub Saxifraga.

Habitat in alpinis Pyrenæorum. ♃.

Non vidi (nisi siccam in Herb. amiciss. Bree) neque figuram; at a descriptione, patriaque, veram speciem credo.

** SPURIÆ : CURVIROSTRATÆ.

Corolla regularis stellaris, petalis subpedunculatis deltoideo-ovatis, 2 inferioribus subinde aliquantillum longioribus s. altius pedunculatis s. graci-

lioribus. *Stamina* infernè parum crassiora, *antheris* subminiatis. *Germen* superum stigmatibus inconspicuis. *Capsula* rostris recurvis. *Semina* vix ovata, nempe valde gibba subincurvave (lente) porcatà.

Herbæ parvæ europeæ elegantes teneræ sed perennes, fibrosis radicibus; foliis obovato-cuneatis sessilibus, supernè solum dentatis, rosam fere formantibus supra terram: scapis subracemosis paucifloris. Forte genus novum inter Spatulariam et Robertsoniam.

S. pilosula, petalis omnibus basi unipunctatis. *stellaris.*
Saxifraga stellaris. Linn. sp. pl. 1. 572.—*Engl. bot.* 167. 3.

β comosa. Smith fl. lapp. t. 2. *f.* 3.

γ depilata; foliis lato-cuneatis dentatis nudis nitentibus, petiolis remotè ciliatis, petalis 3 superioribus basi unipunctatis, infimis immunibus.

Sax. stellaris. Deutsch. fl. cum icone, et Schleich. cat. pl. helvet.

Habitat in Helvetiæ alpibus (non in Britannia).

Floret Maio, apud Dom. Jenkins Nursery prope Londinum, et in Horto Chelseiano, orta e seminibus a Schleichero missis, A. D. 1819.

Obs. Sax. stellaris *Engl. bot.* fere duplo major nitidior et sine hirsutie, exceptis petiolis aliquantillum. *Flores* fortè minus æquales, petalis 2 inferioribus solum punctatis. *Folia* cuneato-obovata remotiusculè serrato-dentata basi solùm et remotè ciliato-pilifera. *Scapus* magis floriferus, altiusque hirtulus pilis expansis (lente) pellucentibus roseis apice glandulosis. *Petala* pedunculata, præcipuè 2 inferiora cuneato-ovalia: 3 superiora subovata, maculis 2 rotundatis distinctis contiguis infernè, infra medium

flavis. *Filamenta* nivea erecto-patula antheris innuptis miniato-rubris, obsoletè rhombeo-cordatis. *Germina* acutiora quam in priore, sed matura non vidi, foliolis calycinis obtusioribus oblongo-parabolicis. A semine crescit sine variatione. Forte propria species.

††† Sarmentosæ, corollis maximè irregularibus.

16. LIGULARIA. *Duval. pl. succ. in hort. alenç. p.* 11. (Saxifraga *Linn. &c.*)

Calyx laciniis 5, concavis. *Corolla* irregularissima, *petalis* 3, superioribus adscendentibus brevibus ; 2, inferioribus ligulatim elongatis dependentibus. *Stamina* filiformia, medio crassiora petalis breviora. *Germen* superum, basi partis superioris glandulâ cerinâ aurantiâ dentatâ, caput galli simulante.

Herbæ perennes teneræ hispidæ, flagellis sarmentosis filiformibus reptantibus. *Folia* longe petiolata rotundata grossè crenata carnosula, supra latè venosa : venis lente argenteis : subtus nitentia, rubescentia, parumque papulosa. *Scapi* graciles plus minus graciliter paniculati.

sarmentosa. L. foliis cordato-orbiculatis carnosulis ; petalis valde inæqualibus.

1. *Ligularia sarmentosa. Duval. l. c.*
Sax. sarmentosa. Willd. sp. pl. 2. 646.—*Hort. kew. ed.* 2. 3. 67.—*Curtis magaz.* 92.
Habitat in China : Japonia.
Floret Jun. Jul. G. H. ♃.
Introd. 1771.
Calyx 5-partitus laciniis oblongo-ovatis subre-

flexis concaviusculis. *Corolla* maximè irregularis, 5-petala, petalis æqualiter petiolatis, tribus superioribus cordatis acutis exiguis pallidè roseis, basi macula flavissima, medio punctis 3-4 rubris subquadratim dispositis; petalis 2 inferioribus pendentibus, oblongo-lanceolatis s. ligulæformibus albis, cæteris quadruplo longioribus. *Stamina* divaricata obtusè complanata alba, deorsum apiceque valde attenuata, inde fere lanceolata, semilongitudine petalorum inferiorum. *Antheræ* rotundato-cordatæ unisulcatæ roseæ. *Germen* fere superum retusum perviride (rostris demum divaricantibus) supernè at basi semicinctum glandulâ cerinâ aurantiâ coronæformi, ex ordinibus duobus dentium obtusorum. *Styli* 2 filamenta fere simulantes albi, inferne viridi-flavi, *stigmatibus* parvulis albis.

Obs. Duval descripsit petala omnia ligulæformia. Non sic in nostra planta. Illius petala superiora ut in optima figura Curtisii. Inde variat

α petalis superioribus cordatis. *Bot. mag.* 92.

β petalis 5, ligularibus, duobus longè majoribus irregularibus. *Duval. l. c.*

L. foliis obovato-oblongis carnoso-coriaceis, petalis omnibus ligularibus parum inæqualibus. *minor.* 2.

Habitat ....

Floret Oct. G. H. ♃.

Introd. ante 1815.

Communicavit florentem amiciss. Bree, priore quadruplo minorem.

Flores racemosi, vix paniculati, 3-4 in singulo racemo, longe pedunculati minutè bracteolati. *Calyx* 5-fidus laciniis elliptico-oblongis s. ovalibus suberecto-incurvis concavis. *Corolla* 5-pe-

tala, petalis irregularibus, lanceolatim ligulæformibus, parum acuminatis, vel subinde lanceolatis; tribus superioribus brevibus adscendentibus subroseis, basi maculâ subgeminatâ flavâ: duabus inferioribus latioribus duplo plusve majoribus, s. elongatim dependentibus niveis. *Stamina* filiformia, medio parum crassiora, petalis omnibus breviora subpatentia, *antheris* roseis. *Germen* superum fisso-geminatum (rostris elongatis divaricatis) supernè, at basi, glandulâ cerinâ aurantiâ dentatâ, cristam galli simulante. *Stigma* album capitatum. Exempla duo solùm examinavi. An idem cum var. *β*, præcedentis? Vix? At petala omnia ligularia, sæpiusque imperfecta. *Folia* variant, sæpe plus minus rotundata, vel subreniformia, sive basi cordata; crassa obsolete marginata lobato-crenata, undique hispida, supra venis albis (lente argenteo-micantibus) reticulata, subtus præcipue nitida.

†††† Punctifloræ, corollis regularibus foliis altè petiolatis.

17. ROBERTSONIA. *Nob. in Synops. succ. p.* 321. (Saxifraga *Linn. &c.*)

Calyx 5-partitus laciniis arctissimè refractis. *Corolla* 5-petala, petalis unguiculatis. *Filamenta* teretia, basi gracillima, superne valde incrassata, petalorum longitudine. *Germen* superum. *Semina* (lente) echinatim tuberculata, rotunda, fusca.

Herbæ perennes omnino, foliis rotundatis sphæroideis, oblongis, cuneatisve, coriaceo-carnosis, serratis, dentatis, crenatisve, lævibus et nitenti-

bus. *Scapi* solidi absolutè aphylli pedales et ultra, effusè gracilitèr paniculati. *Flores* parvi albi, fere semper luteo rubrove perlepidè punctulati.

R. foliis reniformi-rotundatis, dentatis crenatisve. *Geum.*
FLORET Mai. ♃. 1.
Maximè variat.
α Geum; foliis reniformibus dentatis, caule nudo paniculato. *Linn. sp. pl.* 1. 574.—*Sax. Geum. Engl. bot.* 1561.
HABITAT ....
β dentata; foliis reniformibus rotundis crenato-dentatis, petalis sanguineo flavoque punctatis.
Robertsonia dentata. Nob. in Syn. succ. p. 323.
HABITAT in Hiberniæ montibus. Rev. G. T. Bree.
Minus hirta, foliis minus argute dentatis numerosioribus, paulo minoribus, floribus sanguineo flavoque punctatis. *Syn. succ. l. c.*
γ crenata; hirsuta foliis reniformibus rotundis obtusè crenatis.
Robertsonia crenata. Nob. in Syn. succ. p. 323.
Major quam *α*, minus hirsuta, foliis crenatis nec dentatis, floribus sanguineo flavoque perlepide punctatis. *Syn. succ. l. c.*
HABITAT in alpibus. Crescit vulgaris in hortis sine variatione.
INTROD. ante 1790.
δ polita; hirta foliis reniformibus rotundatis argutè dentatis, paginis nudis lævigatis.
Robertsonia polita. Nob. in Syn. succ. p. 322.
HABITAT in Hibernia. Rev. G. T. Bree.
ε gracilis, var. δ similis, at triplo 4-plove minor et omnino gracilior.
Hortulanorum Sax. gracilis.

hirsuta. 2. R. foliis rotundatè subcordato-ovalibus subretusis, subcartilagineo-crenatis dentatisve, nudis rariusve hirtis; petiolis semper hirsutis.

Floret Maio. ♃.

Maxime variat.

α *obliqua;* foliis cum unda obliqua orbiculato-ovatis cordatis crenatis nudis saturatè viridibus.

Sax. hirsuta; foliis cordato-ovalibus retusis cartilagineo-crenatis, caule nudo paniculato. *Linn. sp. pl.* 1. 374.

β *atrovirens;* (deep green) foliis lato-ovalibus, concinnè dentatis atro-viridibus, basi oblique retusis, costa subtus hirsuta.

Communicavit amiciss. Bree, A.D. 1815, nomine Sax. hirsutæ, ex horto apud Liverpool.

γ *læte virens;* (light apple-green) foliis lato-ovalibus, concinne dentatis pallidè viridibus, basi oblique retusis, costa subtus hirsuta.

Sax. hirsuta. Engl. bot. 2322.

Communicavit amiciss. Bree, ex horto botanico Oxoniensi, nomine *Sax. hirsutæ.*

Habitat in Hiberniæ montibus.

δ *hispida;* foliis suborbiculato-ovalibus concinnè utrinque petiolisque hispidis; basi oblique retusis, subcuneatisve.

Habitat in Hiberniæ montibus, nec Scotiæ, ut olim malè audiveram.

ε *sphæroidea;* foliis subcordato-latè-ovalibus altè-obtusè-crenatis, paginis nudis.

Robertsonia sphæroidea. Nobis in Synops. succ. p. 322.

Prioribus varietatibus duplo minor: α, simillima, et forte cum ea propria species.

Habitat in Pyrenæis? Non in Britannia.

R. foliis subrotundis nudis dentatis serratisve, basi plus minus cuneatis. *punctata.* 3.

Floret Maio. ♃. Variat.

α punctata; Sax. punctata: foliis subrotundis dentatis longius petiolatis, caule nudo. *Linn. sp. pl.* 574.

Folia subrotunda dentibus incisa, ut fere lobata absque ora cartilaginea, minime retusa, dentibus acutis. *Petioli* læves triplo longiores, superne sensim dilatati in folium. *Flores* minores quam in S. Geo fere inferi. *Linn. l. c.*

Habitat in Siberia.

β serrata; subhirtula, foliis obovato-cuneatis rigidis argute serratis carnosis, paginis glabris nudis. *Nob. in Syn. succ. p.* 322.

Habitat in Hiberniæ montibus, cum variis subvarietatibus.

Obs. In Hiberniæ montibus, inter se ita variant spontaneè hæce tres præcedentes species, ut limites certissimas nondum inveni.—Fere tantummodo hybridæ omnes, varietatibus sine fine. Sequentes in Hibernia non inveniuntur.

R. foliis obovatis subretusis cuneatisve, cartilagineo-crenatis. *umbrosa.* 4.

Floret Maio. ♃.

Variat minus quam præcedentes.

α longipes; foliis obovatis subretusis cartilagineo-crenatis pedunculis longis ciliato-villosis.

Sax. umbrosa. Linn. sp. pl. 1. 574.

Habitat in montibus apud Cantabros. *Linn. l. c.*

Non in Britannia.

Affinis nimium S. Geo. *Folia* basi minime cordata, crenis angulatis, petiolis ciliato-villosis. *Linn. l. c.*

β brevipes; minor, petiolis abbreviatis florendi tempore foliorum paginis absconditis.

Habitat in Anglia, prope Hessleton Gill in *Com. Ebor.* ubi invenit spontaneam, et vix spontaneam, amiciss. Bree.

Sax. umbrosa. *Engl. bot.* 663.—Varietas insignis.

cuneifolia. 5. R. foliis cuneiformibus obtusissimis repandis, paginis petiolisque nudis.

Sax. cuneifolia. *Linn. sp. pl.* 1.574.—*Scop. carn. n.* 490. *t.* 15.—*Willd. sp. pl.* 2.647.—*Deutsch. fl. cum icone.*

Habitat in alpibus Styriæ.

Floret Maio. ♃.

Introd. 1768.

Simillima præcedenti, sed foliorum margo non crenatus, at obtusissime repandus, folia longe minora. Flores inferi. *Linn. l. c.*

Obs. Petala basi punctum solitarium luteum.

daurica. 6. * R. foliis cuneiformibus truncato-retusis crassis nudis coriaceis, apice dentatis, scapo pubescente.

Sax. daurica. *Willd. sp. pl.* 2. 645.—*Pers. syn.* 1. 488.—*Sax. punctata.* *Pallas itin.* 3. *app. n.* 91. *t.* P. *f.* 2.

Habitat in summis alpibus sub nive. ♃. *Willd. l. c.*

Nimis affinis Sax. cuneifoliæ *Linn.* ?

Obs. Priore duplo major; foliis crassioribus, margine magis cartilagineo-albo; petalis basin versus luteo quadripunctatis. Ob patriam propria species. Exempla duo (ab amiciss. Bree) solum vidi, unum siccatum, alterum petalis fere omnino delapsis. An corolla exactè regularis?

2. *BIVALVES*, capsulis unilocularibus, bivalvibus.

18. MITELLA. *Linn. &c.*

Fructus superus, capsula 2-valvis, valvis æqualibus. *Calyx* 5-fidus, persistens. *Petala* 5, laciniata aut pinnatifida. *Stamina* 10.
Herbæ humiles radice perenni, folia simplicia basi cordata, viridia. *Ex Juss. &c.*

M. foliis cordatis subtrilobis, scapo diphyllo, foliis oppositis argute serratis. *Willd. sp. pl.* 2. 659. —*Bot. regist.* 166. *diphylla.* 1.
HABITAT in America septentrionali.
FLORET Apr.—Mai. ♃.
INTROD. 1751.
β triphylla; scapo triphyllo, foliis alternis subtrilobis crenato-dentatis, crenis acuminulatis.

M. foliis cordatis ciliato-dentatis, scapo nudo. *Pers. syn.* 1. 491. *cordifolia.*
HABITAT in Canada, circa Quebec. ♃. 2.
Non vidi. *

M. foliis rotundato-cordatis, caulibus prostratis foliosis. *prostrata.*
HABITAT in Canada meridionali. Sublobata. *Pers. syn.* 1. 491. 3. *
Non vidi. ♃.

M. hirsutissima; foliis rotundato-cordatis obtusè lobatis dentatis, scapo folio uno alterove instructo, floribus pedicellatis, calycibus campanulatis. *Pursh americ.* 314. *grandiflora.* 4.
HABITAT in America boreali-occident.
Flores cæteris quadruplo majores. *Pursh.*

nuda. 5. M. foliis reniformibus repandis ciliatis; scapo nudo. *Willd. sp. pl.* 2. 660.—*Ait. hort. kew. ed.* 2. *v.* 3. *p.* 73.

Mitella scapo nudo, corollarum petalis fimbriatis. Gmel. sib. 4. *p.* 175. *t.* 63. *f.* 2.

Mitella prostrata. Pursh americ. 314.

HABITAT in Asia, et Americ. boreal.

FLORET Jun. Aug. ♃.

INTROD. ante 1758.

Caules filiformes ramosi prostrati reptantes.

19. TIARELLA. *Linn. &c.*

Fructus superus, *capsula* 1-locularis bivalvis, valvulâ alterâ majore. *Calyx* 5-fidus persistens. *Petala* 5 integra. *Stamina* 10.

Herbæ perennes; folia sæpius radicalia simplicia s. ternata, flores in scapo nudo, aut alternè 2-phyllo, laxe spicati terminales. *Ex Juss. &c.*

cordifolia. 1. T. foliis cordatis. *Willd. sp. pl.* 2. 659.—*Pers. syn.* 1. 491.

Cortusa americana, flore spicato petalis integris. Herman. parad. 129.

HABITAT in America, Asiaque septentrionali.

FLORET Ap. Mai. ♃.

INTROD. 1759.

Menziesii. 2. T. foliis ovatis cordatis acutis brevi-lobatis dentatis, caulinis alternis distantibus, racemo filiformi subspicato, calycibus tubulosis. *Pursh americ.* 313.

HABITAT in America boreali-occident. ♃.

trifoliata. 3. T. foliis ternatis. *Willd. sp. pl.* 2. 659.—*Pers. syn.* 1. 491.—*Miller's dic. No.* 2.

HABITAT in Asia boreali.

*

Floret Maio. ♃.
Introd. ante 1768, a Philippo Millero.

T. foliis biternatis, foliolis ovatis cordatis obliquis inciso-lobatis dentatis, caule folioso, panicula terminali divaricato-spiciflora. *Pursh americ.* 313. *biternata.* 4.
Habitat in Carolinæ montibus.

II. OCTANDRÆ.

20. CHRYSOSPLENIUM. *Linn. &c.*

Calyx superus 4-5-fidus, inæqualis persistens, viridi-aureus uti floralia folia. *Petala* 0. *Stamina* 8-10, brevia, antheris saturatè aureis. *Germen* inferum desinens in stylos 2 altitudine filamentorum; stigmatibus inconspicuis. *Capsula* birostris, 1-locularis bivalvis polysperma.
Herbæ palustres exiguæ sempervirentes radice repente. Folia rotundo-reniformia carnosula crenata, opposita vel alterna. *Flores* dichotomi parvi sessiles, simulantes eos Ribis rubræ; plurimi terminales foliis floralibus magnis aureo plus minus coloratis cincti; 4-fidi, et 8-andri, omnes, excepto rarius primario 5-fido, 10-andro. *Ex Juss. &c.*

C. foliis caulinis alternis. *Linn. sp. pl.* 569.— *Engl. bot. t.* 54.—*Fl. dan.* 366.—*Deutsch. fl. cum icone.* *alternifolium.* 1.

Habitat in Anglia ad opacos margines rivulorum at rarius.

Floret Ap. ♃.

oppositifolium. 2. C. foliis caulinis oppositis. *Linn. sp. pl.* 569.—*Engl. bot. t.* 490.—*Fl. dan. t.* 365.—*Deutsch. fl. cum icone.*

Habitat cum præcedente, at frequentius.

Floret Ap. ♃.

β *minus;* foliis confertioribus, floralibus viridioribus, altiusque crenatis.

Communicavit amicus Dom. R. A. Salisbury.

21. ADOXA. *Linn. &c.* Moschatellina *Tourn.*

Calyx superus 4-5-fidus, basi extus 2-squamosus, squamis persistentibus. *Petala* 0. *Stamina* 8-10, *antheris* subrotundis. *Germen* inferum; styli 4-5 persistentes; stigmata 4-5. *Bacca* globosa umbilicata, 4-5-locularis loculis 1-spermis.

Herba folia biternata radicalia; *scapus* medio oppositè 2-phyllus, apice sæpius 5-florus, floribus capitatis, lateralibus 5-fidis, 10-andris, 5-stylis, 5-spermis, supremo 4-fido, 8-andro, 4-stylo, 4-spermo. Habitus Panacis trifoliæ. *Juss. gen. pl.* 343.

Moschatellina. 1. A. *Linn. sp. pl.* 527.—*Curt. fl. lond.* 2. *t.* 26. —*Engl. bot. t.* 453.

Habitat in Angliæ nemoribus, rarius.

Floret .... ♃.

Radix squamoso-tuberosa. *Folia* annua viridia tenera fugacia. *Flores* inconspicui virescentes odorati.

III. PENTANDRÆ.

22. HEUCHERA. *Linn. &c.*

Fructus superus. *Calyx* 5-fidus. *Petala* 5 parva. *Stamina* 5. *Capsula* 2-locularis.
Herbæ perennes, folia basi cordata lobata, dentata, plus minus villosa. *Ex Juss. &c.*

H. viscoso-pubescens, scapis subnudis, thyrso elon- *america-*
gato, foliis radicalibus longe petiolatis septem- *na.*
lobatis. *Pers. syn.* 1. 290.—*H. viscida. Pursh* 1.
am. 187.—*Cortusa americana, floribus herbidis. Herm. parad.* 130. *t.* 130.—*H. viscida. Pursh americ.* 187.
HABITAT in America boreali.
FLORET Mai.—Jun. ♃.
INTROD. 1704.

H. minor villosissima, foliis acute lobatis, panicu- *villosa.*
lis capillaribus, laxiflora. *Michaux americ.* 1. 2.
p. 172.—*Pers. syn.* 1. 290.—*H. villosa. Pursh americ.* 188.
HABITAT in Carolina infer. montibus.
Flores parvi albi.
FLORET Jun. ♃.
INTROD. ante 1800.
E horto Dubritense communicavit Dom. Underwood, per amiciss. Bree.

H. (great flowered) pulverulento-pubescens; scapo *pubes-*
inferne foliisque subtus glabris, foliis subacuto- *cens.*
lobatis dentatis: dentibus rotundatis mucrona- 3.
tis, pedunculis paniculæ brevibus confertifloris

calycibus campanulatis majoribus, petalis spathulatis calyce longioribus, staminibus vix exertis. *Pursh americ.* 187.

HABITAT in Pensylvania, Virginiæ montibus cæruleis. ♃.

Flores omnium majores.

hispida. 4. H. hispida, scabra; scapo petiolis foliisque subtus glabris, foliis acute lobatis, supra hispido-pilosis dentatis: dentibus brevissimis subretusis mucronatis, pedunculis paniculæ paucifloris, calycibus mediocribus subacutis, petalis spathulatis longitudine calycis, staminibus exertis. *Pursh americ.* 188.

HABITAT in Virginiæ et Carolinæ montibus altissimis. ♃.

caulescens. 5. H. basi suffruticosa; scapo basi petiolisque pilosis, foliis supra glabris subtus ad nervos pilosis acute lobatis ciliatis dentatis; dentibus acutis mucronatis, calycibus brevibus villosis, petalis linearibus calyce duplo longioribus, staminibus exertis. *Pursh americ.* 188.

HABITAT in montibus Carolinæ.

INTROD. ante 1816.

FLORET cum cæteris. ♃.

dichotoma. 6. H. caule dichotomo, pedunculis bifloris foliis oppositis axillaribus. *Juss. gen. pl.* 342; in generico charactere solum notata.

* HABITAT....

Non vidi.

REVISIONES

PLANTARUM SUCCULENTARUM.

AUTORE

A. H. HAWORTH,

LINN. SOC. LONDINI SOCIO, ETC.

Multum adhuc restat, multumque restabit.

LONDINI

IN ÆDIBUS R. ET A. TAYLOR.

MDCCCXXI.

PREFACE.

SINCE the completion of the *Synopsis Plantarum Succulentarum*, the procession of time, and the consequent progress of our knowledge concerning the difficult plants which it is the peculiar business of that publication to explain, have advanced with steady and successful steps. And the Author's unwearied friends, and increasing opportunities, have enabled him to accumulate, digest and arrange, in Linnæan Classes, the materials contained in the subsequent pages; which he humbly trusts will be found acceptable to the admirers of Succulent Plants, and not unuseful to Botanists at large: not merely on account of the new species those pages propose, describe, and teach how to incorporate with the ancient stock; but especially by

more valuable matter, relating to the corrections of unavoidable errors concerning the old species. For, it is far less easy to unlearn, than it is to acquire new information: and because unaltered and accumulating errors, like increasing spots upon the solar disk, obscure the brightness of our ever-pleasing science,—

"Nitorem scientiæ polluunt."

SUCCULENTARUM REVISIONES.

DIANDRIA. Trigynia.

PIPER. *Linn.* &c.

P. (Pereskia-leaved) foliis ter-quaternisque oblon- *Peres-*
gis trinerviis glabris coriaceis, spicis terminali- *kiæfo-*
bus solitariis. *Rœm. et Schultz. syst. veg.* 328. *lium.*
—*Jacq. ic.* 2. *t.* 212. 1.

Obs. P. tricarinato nobis simillimum, at minus omnino: nervis minus vel vix prominentibus nec carinæformibus. St. ♄.

Amicus Parmentier, ordinis Belgici Leonis Eques, &c. in hort. Chels. introduxit A. D. 1820, cum sequente.

P. (small, villose, red-leaved) toto villosum: foliis *rubel-*
quaternis subrotundo-obovatis subtus convexiu- *lum.*
lis rufis lenticuliformibus. 2.

Habitat in Jamaica. St. ♄. *

Viget in hort. Chels. Affine P. verticillato, potiusve P. pallenti; a priore differt, colore rubro, &c.—a P. pallente, foliis quaternis, nec ternis. Simulat quoque P. pulchellum in habitu et magnitudine, sed foliorum forma discrepat, atque magis et valde villosum. Folia, præcipue subtus, ad lucem trinervia.

PENTANDRIA. Digynia.

CEROPEGIA. *Linn.—Synops. succ.* 13.

dichotoma. 1. C. (forked.) *Synops. succ. l. c.*
Flores laterales pauci. *Pedunculi* 1-2-lineares crassi, supernè paululum crassiores. *Calyx* 5-phyllus exiguus, foliolis parabolico-lanceolatis. *Corolla* 1-petala uncialis plusve, tubulosa sordidè lutea, 5-fida, laciniis parum patulis semiuncialibus lineari-lanceolatis, demum ad latera plus minus deflexis. *Genitalia* exigua in fundo corollæ viridi-lutescentia. *Ligulæ* 5 ovato-acutæ dorso inflexo-canaliculatæ (ad lentem) corniculis erectis undulato-subinvolutis vermiculæformibus, staminibus quadruplo brevioribus. *Antheræ* geminatæ luteæ punctulo parvo interjecto.
Cætera non examinavi, et unum florem solùm.

HOYA, *Brown in Hort. kew. &c.*

acuta. 1. H. (acute-leaved) foliis ovato-lanceolatis, acuminatis.
* Habitat .... St. ♄.
Simillima Hoyæ carnosæ, at foliis minoribus magisque acuminatis. Vidi crescentem sine floribus in regio horto Kewense, A.D. 1819.

PENTANDRIA. Trigynia.

PHARNACEUM. *Linn. gen. pl. Schreb.* 517.

pruinosum. 1. * P. (mealy) *Suppl. pl. succ. p.* 15.
Flores vidi apud Kew, Jun. 1, 1819. *Pedunculi* communes, terminales sub 7-unciales graciles

teretes, punctis numerosis nigris scabris, uti partiales calycesque : *partiales* unciales erecti, at post, necnon ante anthesin deflexi, instar Pelargonii ; basi quasi geniculati glabri multi-spathaceo-involucrati, spathis membranaceis, cordato-abruptè acuminatis, pedicellos amplectentibus. *Calyx* 2-phyllus foliolis reflexis oblongo-ovatis viridibus ad oras rubicundis. *Petala* 3, orbiculato-cochleata rosea, delicatissima, extus infernè costato-calycina. *Filamenta* calyci inserta, hypogyna sub 14-16 alba patentia, petalis parum breviora. *Germen* superum ovale. *Styli* 5 radianter expansi breves luteo-virides.

PENTANDRIA. Pentagynia.

LAROCHEA. *Pl. grass.* Crassula *Linn.&c.*

Obs. *Corolla* infundibuliformis, tubo brevi limbum subæquante. *Folia* involucracea nulla. *Flores* corymbosi terminales. *Suffrutices* conspicui succulenti erecti simplices demum lignosi, foliis decussatis perfoliatis magnis integris crassis carnosis canis.

L. (great-falcated.)
Rochea falcata. Pl. gr. 103.—*Crassula falcata. falcata. Bot. magaz.* 2035. 1.
β *minor* (lesser falcated) ; omnino minor.
Communicaverunt illust. Princeps de Salm Dyck, et amici Van Marum, et Parmentier, Equites, A. D. 1821. Fortasse propria species. Exemplaria parva solum vidi.

perfoliata. 2. L. (Great scarlet perfoliate.)
Crassula perfoliata. Linn. &c.—Pl. gr. 13.—*Dill. elth. f.* 113.—*Com. præl. t.* 23.
β alba (great white perfoliate). *Nobis in Synops. succ.* 51.

KALOSANTHES. Crassula *Linn. &c.*

Inflorescentia involucratim subcapitata. *Corolla* 5-fida, infundibuliformis, laciniis tubo 3-plo brevioribus. Cætera, Larocheæ.

Suffrutices formosi humiles succulenti, foliis lorato-lanceolatis cartilagineo-ciliatis decussatis lævibus, nudis viridibus. *Flores* speciosi jasminei, lutei, albi, coccineive, s. versicolores.

Obs. Suffrutices succulenti, foliis decussatim imbricatis crebrè cartilagineo-ciliatis, viridibus, et plus minus lorato-lanceolatis; floribus capitatim umbellatis numerosis confertis, sæpius albis; coccineisve. Patria semper C. B. S.

jasminea. 1. * K. (Jasmine-flowered) caule 3-4 unciali ramulis decumbentibus brevibus; foliis lorato-lanceolatis; floribus capitatim umbellatis.
K. jasminea. Nob. in MSS. et Cr. obtusa Nob. in Suppl. succ. 16. — *Crassula jasminea. Bot. magaz.* 2178.

Floret æstate. G. H. ♄.

Obs. *Flores* subnumerosi terminales ut in affinibus, candidissimi, concinnique, Jasmini flores omnino simulantes, at sine odore suavi per diem. An per noctem?

Obs. This is the C. obtusa of *Suppl. succ.*, which on producing its Jasmine-like flowers, received its present more expressive name.

K. (cymose) calycibus foliolis longis acutis; floribus pedunculatis. *cymosa.* 3.
Larochea ? cymosa. Nob. in Syn. succ. p. 50. *et Willd. sp. pl.* 2. 1548. *Vix Linn.*

K. (sweet-scented) floribus capitatis sessilibus concoloribus flavescentibus. *odoratissima.* 4.
Crassula odoratissima. Kenned. in Bot. rep. t. 26.
Larochea ? odoratissima. Nobis in Synops. succ. p. 51.

K. (two-coloured) floribus capitatis sessilibus flavescentibus, coccineisque. *bicolor.* 5. *
Obs. Priori simillima, at major, forteque rigidior, foliis acutioribus.
Vigebat in variis hortis, atque æstate sæpius floret. G. H. e C. B. S. ♄.

K. (changeable) foliis lanceolato-amplexicaulibus, floribus capitatis sessilibus variabilibus. *versicolor.* 6.
Crassula versicolor. Bot. reg. t. 320.—*Pluk. mant.* 314. *f.* 3.

K. (great changeable) foliis oblongo-lanceolatis amplexicaulibus, floribus variabilibus. *media.* 7. *
Obs. This plant was raised from Cape seeds, and communicated to the author by his kind and generous friend Mr. J. Hooker, late of Norwich, now of Glasgow, an extensive collector and excellent cultivator of succulent plants. Its flowers are said to be variable, like those of versicolor; between which, indeed, and the following species, it seems exactly intermediate. But they are probably all distinct species; or such as, if unallowed to pass, would require the sinking to varieties of almost half the species on record.

coccinea. 8. K. (long-tubed scarlet) foliis cordato-ovatis amplexicaulibus, floribus sessilibus concoloribus.
Crassula coccinea. Bot. mag. t. 495.—*Decandolle pl. gr. t.* 1.
β alba. Brad. succ. t. 50.
Obs. The above are all the species the author has seen in flower, which will arrange under this genus. But other species will still hereafter recede from the large genus Crassula, forming future genera.

CURTOGYNE. Crassula *Linn.* &c.

Germina 5 tereti-oblonga, apice gibbosa, per stylos longos finientia, et quasi externè lateraliter continuosa. *Inflorescentia* umbellato-cymosa. Cætera *Crassulæ;* foliis imbricatim decussatis ligulatis undulatis, cartilagineo minutissimè ciliatis.—*Suffrutices* vix pedales succulenti ramosi e C. B. S.

undata. 1. C. (greater waved) foliis oblongo s. linguiformi ovatis expansis, summis undatis.
* *Crassula undata. Nob. in Suppl. pl. succ.* 19.
Florebat in regio horto Kewense, Aug. 1821.
Flores fere ut in C. undulata, at duplo majores, dense cymosi. *Corolla* 5-petala campanulata, *petalis* lanceolatis albis, basi læviter connatis, apicibus recurvis revolutisve, et in lente optimo minimè serrulatis. *Stamina* epigyna longitudine corollæ et ejus basi adnata erecto-incurvantia (post anthesin solum vidi) *antheris* nuptatis fuscis. *Germina* 5, valdè singularia, viridia, medio apiceve potiùs, intùs gibbosa, ut in charactere generico, stylis continuosis germinum longitudine, antherarumque altitudine, stigma-

tibus capitulatis fuscis. *Glandulæ* ordinariæ basi germinum brevissimæ truncatæ.

C. (lesser waved) foliis connatis ovatis expansis cartilagineo-crenatis, summis ovato-ellipticis undulato-incurvis : caule dichotomo suffruticoso. *undulata.* 2. *

Crassula undulata. Nob. in Syn. succ. 53.

CRASSULA. *Linn. &c.*

Inflorescentia cymosa. *Corolla* 5-petaloidea, expansa, laciniis basi ipsæ, solum coalitis. *Germina* 5 cum stylis continuantibus subulata.

Suffrutices s. herbæ succulentæ, e C. B.S. præcipue; foliis (paucis exceptis) decussatis, corollis albis roseis, luteisve.

* ANACAMPSEROIDEÆ, habitu fere Sedi Telephii *Linn.* foliis planis latioribus macris, margine glanduloso-serratis.

C. (Orpine-like) caulibus erectis; foliis obovato-oblongis, amplexicaulibus minutim infernè punctato-crenulatis : floribus parvis cymosis. *Telephioides.* 1. *

Viget in regio horto Kewense e C. B. S.

FLORET Julio.

Herbacea ? *Folia* remota 3 unc. longa, 18 lineas lata, viridia, concavo-planata, apicè parum recurva, lævia nuda impunctata, sed margine ipso subtus ordine punctorum s. glandularum impressarum vix conspicuarum. *Caules* pedales teretes herbacei purpureo crebrè et confluentèr lineolati, crassitie coracis calami, bracteis remotis decussatis foliiformibus at sensim sensimque

minoribus et internodiis brevioribus. *Florum* cyma bifida-trifida. *Bracteæ* intra cymam minutæ oblongæ s. lineolares, supremæ appressæ fere ad confertos breves pedunculos apice rubræ. *Calyx* foliolis 5, oblongis convexo-concavis sæpe viridi subrufescentibus erectis, apice saturatioribus. *Corolla* campanulata (non magis apertam vidi) 5-petala, petalis lanceolato-oblongis convexo-concavis pallide roseis, 2 lineas longis, apice ipso, mucrone obtuso spurio carinulatis. *Filamenta* 5, alba erecta corolla breviora, *antheris* majusculis oblongis erectis rufescentibus, utrinque sulcatis. *Pollen* non vidi. *Germina* 5, angustè ampullacea, alba intus plana, *stylis* roseis corollæ altitudine finientia, *stigmatibus* fere nullis. *Squamula* ordinaria minuta, quadrata, retusa viridis.

Obs. Plantam gracilem Sedi Telephii *Linn.* habitu parum simulat. Locus prope Crass. crenulatam *Linn. supp. p.* 189. Forteque prope Anacampserotam, *Burm. dec. t.* 24. *f.* 2, at in figura flores magis aperti.

Hæ tres fortasse parum approximant ad Globuleam cultratam Nob., sed Crassulæ sectionem novam constituunt.

** Serrulatæ foliis lorato-acuminatis margine cartilagineo-serrulatis.

corymbulosa. 2. C. (corymbulose.) *Hort. berolin.*

Morientem ramulum 3-entalem sub hoc nomine accepi ab illustriss. Princ. de Salm Dyck A. D. 1821. Habet folia numerosa decussatim imbricata opposita lorato-linearia 2 uncias longa. An affinis Crass. cymosæ *Willd.?* Nescio flores.

C. (yellow-flowered rough) foliis lorato-lanceolatis, cauleque bullulis albidis minute exasperatis: floribus cymosis luteis. Cotyledon africana, &c. *Martyn. cent.* 24, *cum icone.* *bullulata.* 3. *

HABITAT C. B. S. G. H. ♄.

Vidi in *Horto Cantabrigiense*, circa annum 1800.

*** SQUAMULOSÆ, foliis lineari-lanceolatis, ramulisque papuloso-squamulosis asperis.

C. (great recurving-leaved, scaly) foliis lineari-lanceolatis acuminatis revoluto-recurvis cauleque squamuloso-asperis. *scabra.* 4.

Crassula scabra. Linn. sp. pl. 405, excluso synonymo Martyni.—*Crassula Mesembryanthemi facie &c. Dill. elth. f.* 117.—*Ait. kew. ed.* 1. *p.* 395.

C. (patent-leaved, scaly) foliis lineari-lanceolatis acuminatis expansis caulibusque squamuloso-asperis. *scabrella.* 5. *

OBS. Fere exactè intermedia inter præcedentem et sequentem, sed vix varietas. Priore 2-3-plo minor, sequente 2-3-plo major, et magis aspera. In lente in his tribus caules foliaque tecti squamulis pallidis valde adpressis respicientibus, marginalibus squamulis majoribus. *Folia* ad solem, papuloso-nitentia.

C. (small scaly) foliis lanceolatis cauleque papuloso-squamulosis, floribus capitatis. *Willd. enum. suppl. p.* 15.—*Nob. in suppl. pl. succ. p.* 17. *squamulosa.* 6.

OBS. Hæce tres præcedentes, et fortasse C. bullulata supra, sectionem novam constituunt.

**** GLOMERATÆ, floribus minutis glomeratis.

glabra. 7. C. (smooth clustered). *Nob. in Syn. succ.* 58.
C. glomerata β. Ait. kew. 392.

* OBS. Caules glabri, lentis ope subpuberuli. *Folia* sæpe ad apicem pilo uno alterove brevi instructa. *Flores* 5-petaloideæ. *Petala* remota parabolica acuta nudo oculo vix conspicua alba. *Antheræ* luteæ. *Styli* albi erecti.

***** ALTERNIFOLIÆ, radicibus annuis: exiguæ.

pulchella. 8. C. (pretty) caule herbaceo dichotomo, foliis ovato-oblongis carnosis reflexis; floribus in dichotomiis pedunculatis; pedunculis turbinatis.
Crassula pulchella. Hort. kew. ed. 1.*v.* 1.*p.*392. —*In editione* 2 *omissa, nescio quare.*

HABITAT C. B. S.

INTROD. 1778.

FLORET Jul. G. H. ⊙. *Hort. kew. l. c.*

OBS. In horto Chelseiano florebat Maio 1819. Sedo simile. Radix ⊙. *Caulis* 3-6-uncialis grossus teres ramosus supernè sensim crassior. *Folia* alterna carnosa spatulato-oblonga viridia, seniora sæpe subreflexa 3-6 lineas longa, 1-3 lineas lata.

In plantis maximis, *rami inferiores* simplices semierecti; *superiores* dichotomi: omnes paucifoliati. *Flores* in caulium dichotomiis lutei, et in ramis cymosi: inferiores pedetentim remotiores, *pedunculis* fere nullis, grossève turbiniformibus, subinde ebracteatis, vel cum bractea foliiformi. *Calyx* 5-phyllus foliolis omnino foliiformibus patulis, basi distantibus; horum 2,

cæteris minoribus, Mesembryanthemorum modo. *Petala* 5 distantia ovata acuta parum concava suberectiuscula, calyce vix longiora. *Stamina*, filamenta 5, erecta germinibus adpressa, viridia, *antheris* luteis, stigmatum altitudine. *Germina* 5, viridia incurvatim collecta, stylis stigmatibusque nullis inconspicuisve. *Glandula* ordinaria, in lente obtusa pallida, ad basin singuli germinis eoque adpressa.

Huc referenda *C. rubra*, et forte cæteræ alternifoliæ.

****** Rosulares; scapigeræ: foliis ambienter in rosulam densam depressam imbricatis.

C. (great starry) foliis radicalibus multifariis imbricatim depressis in orbem, ligulatis viridibus minutè ciliatis. *rosularis.* 9. *

Vigebat in regio horto Kewense, e C. B. S. A.D. 1819. Sequente triplo major, et adhuc sine ramo, seu sobolibus.

Floret Jul. 1821.

Scapus nudus 6-uncialis dense corymboso-paniculatus, floribus parvis conglomeratis in singulo ramo paniculæ; ramulis bracteâ exiguâ foliiformi suffultis. *Corolla* 5-petala, petalis oblongo-obovatis albis, basi imbricantibus. *Calycis* foliola 5-6, ovalia lente albo-ciliata convexoconcava. *Stamina*, filamenta 5-6, alba, *antheris* erectis luteis, et per sulcum perpendicularem quasi bilobis, utrinque emarginatis, *polline* luteo. *Germina* 5-6, ampullacea alba, stylis brevibus albis parum patulis, finientia, *stigmate* parvo orbiculari saturatiore. Inter singulum filamentum *glandula* ordinaris subcuneata re-

tusa lutea, antheram monstrosam s. suppressam facillime simulans.

orbicularis. 10. C. (sarmentose, starry.) *Willd. sp. pl.* 1. 1563.—*Pl. grass. cum icone.*—*C. orbicularis* repens foliis Sempervivi. *Dill. elth. f.* 118.

Obs. Corolla virescens, apice rosea, petalis basi distinctis stigmatibus purpureis.

Priori simillima, at distinguitur statura minore sarmentisque.

TURGOSEA. Crassula *Thunb.*

Inflorescentia spicato-thyrsoidea, foliose pedetentim bracteata turritiformis. *Corolla* 5-petala, petalis basi ipsa (per lentem) leviter imbricantibus, infra apicem mucronulatis. *Germinis* squamulæ emarginatæ.

Herbæ biennes succulentæ pilosulæ e C. B. S. foliis decussatis planis punctatis, subtus convexis: floribus minutis fasciculatis roseis, in axillis foliorum sensim sensimque minorum thyrsi terminalis.

* Linguæfoliæ; sive foliis loriformibus subacutis crassis.

linguæfolia. 1. * T. (hoary tongue-leaved.) *Crassula linguæfolia. Nob. in Syn. succ.* 56. Forte sequentis varietas. Vix?

tomentosa. 2. T. (tomentose tongue-leaved.) *Crassula tomentosa. Thunb. prod. p.* 56.

pertusa. 3. * T. (impress-dotted tongue-leaved) foliis lorato-acuminatis, exasperatim ciliatis impresso-punc-

tatis viridibus : scapis altè bracteolatis puberulis.

FLOREBAT in hort. Chels. Nov. 1820. G. H. ♃, or ♄.

HABITUS fere Globuleæ, cum Larocheæ inflorescentiâ ?

Folia radicalia decussatim imbricantia semipedalia, lorato-lanceolata plana : superiora sive bracteacea, lorato-subulata, subtus convexa : omnia ad lentem punctis numerosis sparsis impressis, untrinque, at forte majoribus in foliorum pagina superiore. Cilia (lente) cartilaginea alba obtusa creberrima. *Scapus* flexuosus pallidior, bracteis omnino foliiformibus (8 in meo exemplari) per paria decussatis distantibus, sensim minoribus ; supremis pedunculos non superantibus, et solum florigeris. *Flores* subverticillato-capitati terminales, breviter pedicellati. *Corolla* infundibuliformis nivea 5-partita fere ad basin, at laciniis oblongis conniventibus deorsum rectisque, et tubum formantibus ; supernè horizontaliter expansis obtusis. *Filamenta* 5, alba, tubum superantia, *antheris* brevibus, *polline* sulphureo. *Germen* (in lente) viride. *Squamulæ* 5 ad basin corollæ laciniarum, lato-obcordatæ luteæ.

OBS. *Calyx* 5-phyllus exiguus, foliolis lineari-oblongis corolla 3-plo brevioribus eique adpressis.

OBS. I believe this extraordinary plant to be no other than the Aloë africana glabra folio minutissimis cavitatibus notato of *Com. præl. t.* 29 ; and (on the authority solely of that figure) my heretofore ambiguous Aloë pertusa! Vide *Linn. soc. lond. trans. v.* 7. *p.* 25.

** Subovatæ; foliis plus minus obovatis, ovatis, ovatove-lanceolatis, ciliatis.

obovata. T. (obovate-leaved, hispid.)
4. *Crassula obovata. Nob. in Suppl. pl. succ.* 18.
* Obs. Floret in regio horto Kewense fere ut in sequente. In ambabus radix biennis. *Folia* opposità decussata subsesquiuncialia, ciliis brevibus albis respicientibus, viridia et subinde subtus plus minus purpurascentia, punctis pauculis sparsis minutis obsoletis, et lentis ope, quasi impressis. *Caules* potiusve scapi spicato-thyrsoidei hispiduli. Habitus florendique modus iidem sunt in hac specie, quoque in sequente, et (sed densius) in Crassula turrita *Jacq. &c.*

Aloïdes. T. (ovate-hispid) foliis punctatis spatulato-lanceo-
5. latis ovatisve ciliatis, infernè parcè, caulibusque retrorsum hispidis: floribus axillaribus capitulatis spicato-thyrsoideis: thyrso agaviformi.
Crassula Aloïdes. Ait. kew. 394.
Habitat C.B.S. G. H. ♂.
Floret Jul.
Obs. In caldario (vix in aëre aperto) caules floriferi variè decumbentes semipedales valde foliosi hispidi. *Folia* adscendentia subspathulata sescuncialia decussatim densius imbricantia, basi connata vix vere perfoliata, viridia, apicibus rufis plus minusve rufescentibus, præcipue in aëre aperto; ciliis crebris subcartilagineis albicantibus. *Flores* subglomerati in axillis foliorum supremorum sensim sensimque minorum subbracteaceorum, cymam densam trifidam in singula axilla formantes. *Cymarum* ramuli etiam brac-

teolati, bracteolis foliiformibus minoribus et per lentem ciliatis. *Calyx* 5-phyllus, foliolis lineari-lanceolatis erectis rubris bracteolâque rubrâ minore subinde suffultus. *Corolla* angustè campanulata parva 5-petala alba, petalis spathulatis erectis cochleatim convexo-concavis, basi, et sæpe ad latera, imbricantibus, costâ roseâ; et distinctè mucronulatis infra apicem acutam incurvantem, calycem vix vel parum superantibus. *Stamina* 5 alba erecta, *antheris* polliniferis luteis flore brevioribus. *Squamulæ* germinis emarginatim lunulæformes, virescentes. *Germina* 5 angustè ampullæformia, intus complanata, *stylis* erectis collectis parvis albis finientia, antherarum altitudine stigmatibus inconspicuis.

A Crassula *punctata* differt caule foliisque hispidis, et radice bienni: et discrepat a C. obovata supra, in statura minore et foliorum formâ.

Huc etiam referendæ C. turrita, C. capitella, C. thyrsiflora, et fortasse *aliæ in Thunb. prod. p.* 55. *&c.*

GLOBULEA. *Nob. in Syn. succ.* 60. Crassula *Aliorum.*

* Fruticulosæ. Caulibus fruticulosis.

G. (shrubby.) *Nob. in Syn. succ. l. c.* *cultrata.*
Crassula cultrata Aliorum. Dill. elth. f. 114.—
Bot. mag. 1940. 1.

** Herbaceæ, foliis radicalibus cespitosè decussatis.

G. (large-leaved, grey) foliis ventricosè lanceolatis *capitata.*
s. subacinaciformibus cultratis subtus convexi- 2.

usculis, imbricatim decussatis: junioribus canis.
Crassula capitata. Cat. hort. dyck. 1820. *p.* 14.
Communicavit illustr. Princeps de Salm Dyck, 1819.
Obs. G. obvallari simillima, at major, foliis magis acinaciformibus, sæpe sescunciam latis.
Floret Julio, fere ut in G. obvallari. G. H. ♃.

obvallata. 3. G. (Houseleek-leaved.)
Globulea obvallata. Nob. in Syn. succ. 60.—*Crassula obvallaris. Hortorum.*

canescens. 4. * G. (middle grey). *Nob. in Syn. succ.* 61.

nudicaulis. 5. G. (slender cespitose, grey) foliis subulatis supra planatim subsemiteretibus canescente-puberulentibus. *Nob. in Syn. succ.* 61.
Crassulan udicaulis Aliorum.—*Crassula cespitosa longifolia. Dill. elth. f.* 115.
Communicavit Illust. Pr. de Salm Dyck, 1821.

sulcata. 6. G. (slender cespitose, green) foliis incurvis subulatis semiteretibus saturatè viridibus nitidis latè canaliculatis.
Communicavit amicus Dom. Law. G. H. ♃.
Obs. E Cap. B. S. sine dubio.
Præcedenti simillima, differt colore, et absque pubescentia, foliis supra latè sulcatis. Subinde habet foliorum margines imperfectè et minutè ciliatas. *Flores* prioris, at non possideo.

VAUANTHES. (V-flower.) Crassula *Linn.*
Calyx campanulatus 5-fidus erectus. *Corolla* 1-pe-

tala basi tubulosa, limbo 5-6-petaloideo. *Stamina* filamenta 5-6 tubo infernè adnata. *Squamulæ* germinis nullæ!

Obs. A Crassulinis generibus differt in absentia squamularum; rursumque discrepat a Cotyledone habitu numeroque filamentorum.

Herba annua exigua nuda glabra succulenta. Simulat parvam Gentianam, Chloramve.

V. (Chlora-flowered). *Chloræflora* 1. *
Crassula dichotoma. *Linn. sp. pl.* 404.—*Ait. kew. ed.* 1. 392.

Caules 6-9-lineares erecti (s. in caldario decumbentes) teretes purpurascentes. *Folia* opposita remota sessilia basi distincta cordato-amplexicaulia, s. ovato-acuminata, basi cordata pallidè viridia glabra expansa. *Flores* terminales umbellato-dichotomi pauculi. *Pedunculi* graciles filiformes 6-10-lineares erecto-patuli. *Calyx* 1-phyllus 5-partitus obtusangulatus validus s. grossus, laciniis obtusis rotundatisve, externè convexiusculis. *Corolla monopetala*, 5-6-partita basin versus tubulosa, (tubo calycem æquante) supernè 5-petaloidea, laciniis ovatis rotatim expansis 5-6-linearibus luteis. *Filamenta* 5-6, tubo infernè adnata, stylorum longitudine. *Antheræ* luteæ. *Styli* a germinibus progredientes, subulati, stigmatibus lente capitulatis, altitudine tubi corollæ plusve.

Obs. *Corollæ* laciniæ basi eleganter notatæ sunt literâ vau reversâ parvâ rubrâ: unde nomen.

Habitat C. B. S. G. H. ⊙.

Floret Jul.

COTYLEDON. *Linn. gen. pl.* &c.

C. (three-flowered) foliis obovatis carnosis inte- *triflora.* 1.

gris, floribus spicatis ternis sessilibus. *Thunb. prodr.* 83.
Cum sequente communicavit Illust. Pr. de Salm Dyck, A.D. 1821. G. H. ♄.

Jasmini-flora. 2. * C. (Jasmine-flowered) suffrutescens; foliis carnosis, lanceolatis vel oblongo-spathulatis viridibus nitidis, pedunculo ramoso, floribus longe pedicellatis, pedicellis incrassatis obclavatis. *Salm. obs. bot. p.* 38.
E C. B. S. in anno 1818. G. H. ♄.

undulata. C. (waved.) *Suppl. pl. succ.* 20.—*Burm. dec. t.* 19. *f.* 2?
3. * Obs. Simulat C. orbicularem, at longe humilior, foliis incipientibus apice magis undulatis cuspidatisque.

oblonga. C. (oblong-leaved.) *Nob. in Syn. succ.* 106.
4. Obs. Duas varietates vidi.
* *α major* foliis quadriuncialibus 2-3 latis farinoso-albis. *Flores* fortè omnium maximi paniculâque magis productâ. *Filamenta* corolla breviora. *Styli* staminum longitudine. In cæteris cum Cotyledone orbiculari convenit.
Florebat apud Kew in regio horto Mai. 1820, cum sequente.
An Cotyledon paniculata. *Thunb. prodrom.* 83.?
Communicavit amicus Dom. Aiton.
β minor, duplo plusve.
Flores non vidi.

papillaris. C. (Cacalia-like.) *Nob. in Suppl. succ.* 21.
Obs. *Flores* apud Kew, Mai. 1820, fere ut in
5. C. orbiculari, at 2-3-plo forte minores.

C. (Cacalia-leaved) foliis teretibus floribus paniculatis caule fruticoso. *Thunb. prod.* 83. *Cacalioides.* 6.
Habitat C. B. S.
Floret Mai. G. H. ♄.
Obs. In regio horto Kewense duæ species vigent, foliis variabilibus teretiusculis s. clavato-subcuneatis farinoso-albis. Viz. C. papillaris *Thunb. prod.* 83, foliis carnosis oppositis tereti-ovatis [retusisve cum mucrone] glabris, floribus pedunculatis; et C. Cacalioides; foliis teretibus, floribus paniculatis, caule fruticoso. Difficillimè distinguuntur, at apparent species duæ.

C. (spotted-leaved) suffrutescens, foliis ovato-spathulatis basi subauriculatis, carnosis nitidis, utrinque maculis atro-rubentibus notatis: Floribus spicatis, subalternis. *Obs. bot. in Horto dykensi, printed A.D.* 1820. *page* 5. *maculata.* 7. *
Olim Cotyledon alternans. Cat. hort. dyck., et inde Cotyledon alternans? Nobis in Suppl. pl. succ. p. 28.
Bis accepi ab. illust. Principe de Salm Dyck, nomine Cot. alternans. *Willd.?* At sine dubio alia est, quoque species pulchra.

C. (*Suppl. pl. succ.* 22.) *mammillaris.* 8. *
Obs. *Flores* terminales in racemo 3-4-floro parum paniculato, infernè bracteato. *Pedunculi* graciles 6-12-lineares erecti nutantesve, cum calycibus uti corollis, ramentaceo-pubescentes. *Calyx* 5-phyllus foliolis erecto-appressis oblongo-linearibus acutis. *Corolla* ventricosa 9-linearis sordidè fulvescens, laciniis 5 subrevolutis acutis. *Genitalia* inclusa corollâ dimidio breviora. *Filamenta* 10, sordidè flavescentia, lente villosa, basi intùs planiuscula externè convexa, apicem

versus sensim attenuata, horum 5 lineam humiliora: omnia basi corollæ adnata. *Antheræ* luteæ. *Styli* 5, subulati, albi in germine viridi deorsum sensim dilatantes.

Florem unicum ex horto regio Kewense solum examinavi in Junio 1819.

dichotoma. 9. * C. (fork-spined.) *Suppl. pl. succ.* 27.

Obs. *Folia* subinde canaliculata. *Flores* (in exemplari solitario, e regio horto Kewense in Junio 1820) subcymosi quatuor terminales. *Cyma* tenuis dichotoma 2-uncialis, spinis patentibus 3-linearibus bracteaceis septem, fere basi pedunculorum. *Pedunculi* erectiusculi minus patuli subcapillacei at rigidi, fere unciales, in lente cum floribus puberuli. *Calyx* 5-partitus exiguus, demum plus minus refractus atque marcescens. *Corolla* 5-angularis subampullæformis 5-fida, sordidè virescens, laciniis lanceolatis acuminatis villosulis, apud anthesin arctissimè retrofractis tubove retro-adpressis: sed post florescentiam variè assurgentibus patulisve immunibus, at extus ad lentem rubro punctatis lineolâque rubrâ dorsali. *Filamenta* 10, æqualia, corollæ tubum vix superantia, eoque infernè connata, lente subvillosula. *Germina* 5 arctè collecta cohærentiave in figuram fere ampullaceam 5-sulcatam; finientia in *stylis* 5, *stigmatibusque* exiguis totidem, at manifestè capitellatis, *antheras* erectas parum superantibus.

Ad basin singuli germinis, eoque adnata, exstat squamula quadrata emarginata pallida oculo nudo manifesta.

Fere genus proprium.

KALENCHÖE. *Adanson. — Decand.— Nob. in Syn. succ. p.* 109.—*Cotyledon. Linn.—Veria. Kenn. in Bot. rep.*

Suffrutices africani s. herbæ carnosæ glabræ nudæ, foliis oppositis plus minus dentatis pinnato-sectisve, rarius integris, vel ad apicem solùm dentatis. *Flores* terminales subcorymbosè paniculati, sæpius lutei vel rufescentes; at in una specie albi.

K. (yellow-spatulate.) *Decand. in Pl. grass. cum icone* 65. *spathulata.*
St. ♄. s. ♃. 1.

K. (red-spatulate.) *Decand. in Pl. grass. cum icone* 64. *ægyptiaca.*
Amicus V. Marum Eques communicavit cum priore. 2.
St. ♄. s. ♃.

K. (white-flowered.) *acutiflora.*
Veria acutiflora. Bot. rep. 460.
St. ♄. 3.

K. (great notch-leaved.) *crenata.*
Veria crenata. Kenn. in Bot. rep. t. 21. 4.
St. ♄.

K. (cut-leaved.) *Decand. in Pl. grass. cum icone.* *laciniata.*
St. ♄. 5.

K. (buck's-horn-leaved) foliis pedato-bipinnatis inciso-dentatis pallidè viridibus, cauleque ramoso succulentis. *ceratophylla.* 6. *
Obs. A præcedente satis discrepat foliorum formâ, et magis ramosa.

Viget in regio horto Kewense. St. ♄.
Habitat in Sina.
Flores ignoti.
Fortasse *Bryophylli* species, nempe folia facillimè radicant. Flores docebunt.

ANACAMPSEROS. *Ray et Tournef. Nob. in Syn. succ. p.* 111.

arguta. 1. * A. (lance-toothed carpathian) foliis oblongo-lanceolatis argutè dentatis.
Habitat in alpibus Carpathicis.
Introd. a Dom. Whitley et Co. 1820. H. ♃.
Floret ....
Obs. Anacampseroti vulgari Nobis (Sedo Telephio γ *Linn.*) simillima, at duplo altior, foliorumque dentibus profundioribus.

pauci-dens. 2. * A. (few-toothed) foliis cuneato-obovatis, apicem versus sub-4-dentatis; caulibus semipedalibus.
Habitat ....
Florebat in regio horto Kewense, Aug. 1820. H. ♃.
Obs. *Caules* effuso-decumbentes. *Folia* alternà contigua glaucescentia. *Flores* ut in affinibus paniculato-corymbosi copiosi albicantes.
Sedo Telephio γ *Linn.* affinis, at longè humilior, foliis latioribus apicem versus 2-4-solum-dentatis.

pectinata. 3. * A. (pectinated) foliis lanceolato-oblongis pectinato-dentatis.
Habitat ....
Vidi post florescentiam in regio horto Kewense, Apr. 27, 1820. H. ♃.

Obs. Caules foliosi solum annui, 3-4-unciales e radice (forte plus minus strumosa) perenni. *Flores* terminales capitati. *Foliola* calycis 4. *Petala* 4 (post anthesin) parva albo-viridia canaliculato-incurva foliolis calycis duplo latiora pauloque longiora, at valde inconspicua. *Stamina* non vidi, at forte rectim 8. *Germina* 4. Penthori facies. Vix genus proprium.

A. (livid) foliis obovato-cuneatis dealbato-lividis; floribus cymosis. *livida.* 4.
Sedum lividum. Willd. enum. supp. p. 24.
Habitat .... G. H.? (forte H.) ♃.
Caules vix semipedales, (annui?) *Folia* sub-uncialia. Locus est incertus.
Communicavit amicus V. Marum Eques, cum variis aliis succulentis.
Flores cymosi albi.

A. (fringed) foliis oppositis cuneato-obovatis, supernè dentatis; margine costa subtus, cauleque puberulis; cyma sessili terminali conferta. *ciliaris.* 5. *
Anacampseros ciliaris. Nob. in Syn. succ. 113. *A.D.* 1812.—*Sedum oppositifolium. Bot. mag.* 1807. *A. D.* 1816.
Habitat in Monte Caucaso.
Caules decumbentes ad nodos radicantes; floriferi erecti, radice perenni. Vix satis a sequente distincta, at duplo minor, foliis angustioribus, cyma magis compacta. Flores albi nec rubri.

A. (greater fringed) foliis oppositis subrotundo-obovatis basi cuneatis, apice crenatis; margine, costa subtus, cauleque cartilagineo-puberulis: cyma divaricata, floribus rubris. Sedum spurium. *Willd. enum. p.* 484. *spuria.* 6.

HABITAT in rupestribus Caucasi. H. ♃.
Cum priore et sequente in autumno floret.

dentata. 7. * A. (large toothed) nuda: foliis alternis cuneato-obovatis dentatis, supremis deorsum pinnatisecto-dentatis magisque petiolatis: cyma sessili terminali.

HABITAT.... H. ♃.

OBS. This is the plant which is called *Sedum dentatum* in gardens, as mentioned in *Bot. magaz.* 1807, but I am not by any means certain of its being the *denticulatum* of Donn's catalogue. As a species it is extremely distinct from the two preceding; although nearly intermediate in size. The leaves (not to repeat what is given in the specific character) are more shining, and upon far slenderer or longer and more deeply-channelled petioles. Nevertheless, all the three at first sight are very much alike.

SEDUM. *Linn. &c.—Syn. succ. p.* 115.

quinquefidum. 1. * S. (linear-leaved) foliis sparsis spathulato-linearibus viridibus, floribus subternis subsessilibus terminalibus quinquepetalis, radice perenni.

HABITAT.... H. ♃.

OBS. Sub hoc nomine viget in hortis Londinensibus. Simillimum est Sedo 4-fido *Willd.* at petalorum numero discrepat. An varietas? *Petala* viridi-alba, suprema folia vix superantia.

Sedum quadrifidum in hortis nostris nunc oblitum. Parvam plantam, et olim, solum vidi, sine flore.

hexapetalum. 2. * S. (perennial 6-petaled) caulibus simplicibus, foliis linearibus sparsis teretiusculis, supra planis, radice perenni.

Sedum lineare. Thunb. jap. 187?—*Willd. enum.* 766?—*Sedum sexfidum. Hortorum.*

Obs. Messrs. Loddiges favoured me with a specimen of this plant in flower, from their splendid collection in June last, under the name of *Sedum sexfidum;* which name being occupied by the following species, could not with propriety be here retained. The present article very much resembles *Sedum quadrifidum* of Willd., and but for the name, I should have thought them the same. A detailed description of *S. hexapetalum* I have mislaid, and drawn up this account of it from memory only. Perhaps a var. of S. 5-fidum. Perhaps of 4-fidum. *Perhaps the three* are one. I have not the means of deciding at present, and have only been able to procure a single and imperfect specimen of each, and those at different and distant times, preventing due comparison.

S. (annual 6-petaled) foliis teretiusculis glaucescentibus, caule diviso, cymis bipartitis, floribus dodecandris hexapetalis, patulis mucronatis trinerviis. *Willd. enum.* 487. *sexfidum.* 3.

Habitat in Caucasiæ rupestribus. H. ☉.

In July 1819, I was favoured with specimens of this plant, by the name of *S. sexfidum*, at Mr. Jenkins's neat gardens in the City Road; where there is one of the finest collections of hardy herbaceous plants in this country, arranged in Linnæan classes; and open to the public through an annual and moderate subscription.

This plant also occurs in our collections under the names of *S. glaucum* and *pallens*, and even *pallidum;* which last is marked as a ♃ in *Willd.*

enum. suppl. p. 24, and is unknown to me. How far it really differs from the following species I confess I have yet to learn. But Willdenow, in the place above cited, says—"Simillimum Sedo glauco, sed diversum : foliis minus glaucis longioribus, caule diviso, qui in Sedo glauco simplex apice cyma trifida instructus, cymis bipartitis, vel ramis simplicibus indivisis floribus obsitis, petalis trinerviis, quæ uninervia in Sedo glauco." *Willd. l. c.*

glaucum. 4. S. (annual glaucous) foliis teretiusculis glaucis, cyma trifida, ramis recurvato-patentibus, floribus dodecandris hexapetalis, petalis mucronatis uninerviis. *Willd. enum. p.* 486.—*Walst. et Kit. hung.* 2. *p.* 198. *t.* 181.

HABITAT in collibus arenosis Banatûs. H. ♂.

OBS. This name must remain with the present plant by right of priority, the only just right (absurd names ever excepted) in such cases : and the *Sedum glaucum* of Curtis, (*in his Garden and Catalogues*), of *English Botany*, and of *Syn. pl. succ.*, must receive another appellation : I here propose the name of

albescens. 5. * S. (perennial glaucous.)
Sedum glaucum. Curtis : Haworth : Smith.

OBS. The var. β of *Syn. succ.* 117, is the plant figured in *Engl. bot. t.* 2477.

recurvatum. 6. S. (recurved) foliis tereti-subulatis mucronatis glaucescentibus, ramorum sterilium reflexis, floralium recurvato-patentibus, ramis cymæ recurvatis. *Willd. enum. suppl.* 25.

OBS. Planta parva, e regio horto Berolinense, A. D. 1820, sub hoc nomine, in horto Chelsei-

ano nunc viget: *ramis* decumbentibus vix semipedalibus valde foliosis: *foliis* expansis linearibus vix subulatis incurvis glaucis subtus convexulis supra planiusculis. Non est Sedum reflexum Botanicorum anglicanorum, sed 3-plo minus, et magis affine Sedo glauco *Engl. bot.* 2477. At forte minus, et alium. Est Sedum reflexum *Linn.* secundum *Willd.*

S. (glaucous and green-leaved) foliis tereti-subulatis acutis, ramorum sterilium glaucescentibus patentibus, floralium erecto-patulis, ramis cymæ recurvis. *Willd. supp. p.* 25. *collinum.* 7.
Viget in regio horto Kewense.
Flores (Julio) pallidè luteo-virescentes. *Folia* glauca: interdum viridia.
Præcedenti et sequenti affinis. Folia glauca: interdum viridia.

S. (pale-flowered) foliis tereti-subulatis, ramorum sterilium patentibus glaucescentibus, caulis floriferi patulis compressis, cymæ ramis confertis erectis. *Willd. suppl. p.* 25. *virescens.* 8.
Obs. Folia virescentia. Flores fere albi.
Cum duobus sequentibus communicavit illustr. Pr. de Salm Dyck, 1821.
Vidi apud Kew.

S. *Willd.—S. anopetalum. Hort. dyck. cat.* 34. *anopetalum.* 9. *
Hoc est affine priori. Perfectum non vidi.

S. *Hort. par.* (nutant yellow.) *nutans.* 10. *
Affine prioribus. Perfectum non vidi.

S. (oblong-leaved) foliis ovatis parabolico-oblongisque subtus convexis 4-linearibus subdistantibus. *oblongum.* 11. *

HABITAT in Anglia.
FLORET Jul.—Aug. H. ♃.
OBS. Sedo anglico duplo majus foliis paucioribus distantioribus. Simulat quoque Sedum album. Germinis squamulæ ordinariæ fuscæ.
OBS. This and the two following are described from Chelsea garden.

anglicum. 12. S. (small English) foliis cordato-ovatis subtus convexis 3-linearibus confertis.
Sedum anglicum. Engl. bot. 171.—*Sedum anglicum β. Nob. in Syn. succ.* 120.
HABITAT in Anglia, Hiberniaque.
FLORET Jul.—Aug. H. ♃.
Priore duplo minus. *Petala* rosea. *Styli* intùs, squamulæque germinis rubri.
β microphyllum (least English); foliis cordato-ovatis subtus convexis bilinearibus glomeratissimis.
HABITAT in Anglia.
FLORET Jul.—Aug. H. ♃.
Sedum anglicum α. Nob. in Syn. succ. 120.
OBS. Ultimo fere triplo minus, floribus toto albis. Germinis squamulæ rubræ. Propria species forsan.

pallens. 13. * S. (5-petaled annual glaucous) foliis tereti-subulatis subincurvis glaucis, caule ramosissimo, ramis expansis, floribus 5-petalis; petalis lanceolato-acuminatis.
Sedum pallens. Nob. in Suppl. pl. succ. 29.
HABITAT.... H. ⊙. s. ♂.
FLORET Jul.
OBS. *Caules, calyces* uti *corolla* externè quoque germina lente puberuli. *Calycis* foliola parva ovato-acuta. *Flores* paniculato-cymosi albi,

cymis dichotomis; inferiores (flores) brevissimè pedunculati. *Squamulæ* ordinariæ ad basin filamentorum petalorumve albæ. *Filamenta* 10, corolla breviora, *antheris* parvis fuscis. *Styli* nudi nivei subulati germinum longitudine, *antherasque* fere æquantes. *Germina* oblongo-teretia. An varietas pentapetala Sedi sexfidi, supra?

S. (dwarf-whirled.) *Willd. enum.* 486, *et Suppl. pl. succ.* 29. *monregalense.* 14.
Obs. *Flores*, in Junio, cymoso-paniculati 5-petali albi stellares. *Caules* floriferi 4-6-unciales.

S. (pubescent blue) subpubescens; floribus paniculato-cymosis 7-8-petalis; foliis expansis semiteretibus obtusis canaliculatis. *cæruleum.* 15.
Sedum cæruleum. Linn. mant. 241.
Habitat....
Floret Jul. H. ⊙.
Obs. *Caulis* flexuosus ramosus rubens, uti *folia* sparsa, opposita decussataque, (in exemp. nost.) 4-uncialis. Ad lentem omnino (floribus exceptis) villosulum. *Calycis* foliola 7-9, parabolica. *Corolla* minuta petalis 7-8, stellatim expansis, apice incurvulis oblongis læte cæruleis. *Filamenta* circiter 12 alba *antheris* fuscis, stylis parum humiliora. *Styli* 7-9, albi subulati petalis breviores. Species pulchella.
Obs. I received the specimen here described by the name of *S. leptopetalum*, from the fine collection of Messrs. Jenkins in the New Road.
β violaceum (pale violet); foliis oblongis alternis obtusis basi solutis, cyma bifida glabra. *Willd. sp. pl.* 2. 766.—*Bot. regist.* 520.
Obs. Whether this plant is really different from

the above, I have not the means of deciding; but Willdenow says his plant is not the same as the one of Linnæus, which we presume our really blue 7-petaled one to be. The *Bot. register* says, *p.* 520, the petals of the plant there delineated are pale violet, and do not turn blue until they are dried; and they are figured of a rosey hue, or rather of the colour of the blossom of the peach.

saxatile. 16. S. (rock, small-leaved) foliis sparsis semiteretibus obtusis basi solutis, caule ramoso decumbente. *Willd. sp. pl.* 2. *p.* 765.
Habitat in Alpibus. H. ⊙. s. ♂.
Communicavit Dom. Gul. Anderson, A.D. 1820.

Semper-vivoides. 17. * S. (Houseleek-like).
Under this name there is a plant in Chelsea Garden, raised from seeds sent by Mr. Otto from the Royal Gardens of Berlin. See the end of this work for a further account of it.

HEXANDRIA. Monogynia.

BULBINE. *Willd. enum.* 372.

Spatha 0. *Corolla* 6-partita patens. *Filamenta* barbata. *Caps.* subrotunda. *Sem.* angulata. *Willd. enum. p.* 372.

rostrata. 1. B. (glaucous shrubby) foliis carnosis teretibus glaucis, caule fruticoso brevissimo radicante. *Willd. enum. p.* 372?

HABITAT C. B. S. G. H. ♄.
Vigebat in regio horto Kewense, A. D. 1819? s. 1820.
Flores affinium lutei.

B. (grassy) foliis carnosis lineari-subulatis striatulis viridibus supra planis, subtus convexis. *graminea.*
Viget in hort. Chels. G. H. ♃. 2.
OBS. Acaulis, folia omnia radicalia ambientia, patula. *Flores* lutei ut in cæteris, scapo pedali, Julio 1820. *

B. (large, Aloë-like) foliis carnosis oblongo-lanceolatis acuminatis nervosis rectis scapo quadruplo brevioribus. *latifolia.* 3.
Anthericum latifolium. Willd. sp. pl. 2. 144.
HABITAT C. B. S. G. H. ♃. s. ♄.
Vigebat in regio horto Kewense, A.D. 1819.
Flores lutei ut in B. Alooides.

B. (nodding-flowered) foliis lineari-ensiformibus scapo brevioribus, racemo ovato cernuo. Anthericum nutans. *Thunb. prod.* 63. *nutans.* 4.
Viget cum sequente, et floret ut in affinibus, Junio mense, in regio horto Kewense.

B. (bulbous) bulbo depresso, filamentis declinatis, omnibus barbatis. Anthericum bulbosum. *Br. prod. nov. holl.* 275. *bulbosa.* 5.
Affinium flores.

B. (half-bearded) radicibus fibrosis, filamentis declinatis exterioribus imberbibus. Anthericum semibarbatum. *Br. prod. nov. holl.* 275. *semibarbata.* 6.
Vigebat apud Dom. Loddiges A. D. 1820. G. H. ♃.

Obs. Huc etiam referenda Anthericum Alooides—longiscapum, et Asphodeloides—necnon annuum et pugioniforme *Synops. pl. succ.*—cum aliis Anthericis filamentis barbatis.

YUCCA. *Linn. &c.*

Obs. Germina infernè ad pedunculos articulata, et inde post anthesin in hortis, sæpissime caduca.

glaucescens. 1. * Y. (glaucous thready.) *Suppl. pl. succ. p.* 35.
Obs. *Flores* magni tulipiformes albi, petalis exterioribus extus costâ latè subochraceâ. Stigmata semilongitudine staminum confluentia.
Florebat Jul.—Aug. Apud Dom. Whitley et Co. in panicula magna sumptuosa, ut in plurimis.

angustifolia. 2. Y. (narrow-leaved, thready.) *Suppl. pl. succ.* 35.
Obs. *Florebat* sumptuosè apud Dom. Whitley, Brames et Milne, Jul. 1820.
Obs. Ampla florum et densa panicula (cum planta subacauli) fere orgyalis, ramo principe longo producto. *Flores* confertè approximati vix aperti, viridi-pallescentes, petalis *exterioribus* sordidè rufescentibus longè angustioribus elliptico-lanceolatis: *interioribus* ovato-orbicularibus cochleariformibus. *Stigmata* robustissima viridia confluentia.

rufocincta. 3. * Y. (rufous-edged.) *Suppl. pl. succ. p.* 37.
Obs. Florebat aëre aperto in hort. Chels. Jul. 1820, floribus fere ut in affinibus, in panicula magna densa pallescente.

AGAVE. *Linn. &c.*

A. (many-black-spined) foliis lorato-lanceolatis acuminatis concavo-convexiusculis perviridibus, spinis marginalibus brevibus subtriangularibus numerosissimis sursum subincurvantibus atropurpurascentibus. *polyacantha.* 1. *

HABITAT.... St. ♃.

OBS. Statura et habitus A. viviparæ, at foliis sesquipedalibus longè saturatioribus, spinis validis ad lucem atro-purpurascentibus, subalternatim sæpe dimidiatis.

OBS. This noble plant I have known nearly twenty years, in the fine collection of the Earl of Tankerville, at Walton upon Thames, where his lordship's excellent gardener Mr. Richardson manages and annually flowers the finest specimens of about 150 species of Mesembryanthemum I have ever seen.

A. (narrow-leaved.) *Syn. succ.* 72. *angustifolia.* 2. *

OBS. There are two plants of *Agave angustifolia* in Chelsea garden, lately brought from the rock of St. Helena, by which we learn its native place. They were short-leaved on their arrival; but cultivation has already nearly communicated to them their customary appearance with us.

PACHIDENDRON. Aloë *Linn. &c.*

Perigonii longi cylindrici laciniæ, genitaliaque altè porrectæ, assurgenter falcatim incurvantes. Cætera fere ut in Aloë.

Arbusculæ africanæ, propaginibus nullis: caudice semper simplici lignoso erecto grosso, senecto

20-pedali ultraque, et siccatis foliis eorumque cicatricibus subinfractim incomptè onusto. *Folia* capitatim terminalia, ambienter multifaria, erecto-expansa recurva retrofractave, sæpe pedalia plusque ensiformia, s. sublanceolata amplexicaulia basi arctissimè vaginantia crassa succulenta, epidermide duro lævi; tuberculatim-spinosa, vel semper ciliato-spinosa. *Flores* terminales in spica densa longa superba lutea luteococcineave. *Corollæ* potiusve *Perigonia* pendulæ (e pedunculis suberectis) tubulosæ, apicem versus falcatim assurgentes.

* Angustifolia, foliis ensiformibus patulo-recurvantibus, floribus flavis.

africanum. 1. * P. (great red-spined) foliis latè ensiformibus erecto-subrecurvantibus lævibus duris, adultis post medium recurvis: spinis marginalibus, dorsalibusque apicis igneis.

Aloë africana. Mill. dic. ed. 8. *No.* 4.—*Nob. in Linn. soc. tr. vol.* 8. *p.* 21. — *Aloë perfoliata africana. Hort. kew. ed.* 1. *p.* 466.—*Aloë africana. Hort. kew. ed.* 2. *v.* 2. *p.* 296.—*Comm. prælud.* 68. *t.* 18?—*Hort.* 14?

Habitat C. B. S.

Floret Feb.—Mai. G. H. ♄.

α latum.

Aloë africana α, latifolia. Nob. in Supp. pl. p. 47 et 106.

Obs. *Flores* tubulosi, in vasta lutea eximiaque spica, penduli, e pedunculis erectis gracilibus. *Perigonium* sesquiunciale superne cum laciniis curvatim arctè assurgens. *Genitalia* quoque falcatim-orientia, et porrecta nudaque ultra perigonium usque ad 4-5-lineas. *Filamenta* intra

tubum aurantio-rubra ; eorum insertionem non exactè vidi. *Antheræ* magnæ. *Stylus* lutescens validus antheras superans.

Obs. Flores 2-3 Kewenses defloratos mancos *morientes*, at copiosissimè mellifluos, solum examinavi.

β angustum ; foliis fere duplo angustioribus quam *α*, et magis recurvantibus.

Aloë africana β, angustior. Nob. in Suppl. pl. succ. p. 47. —*Aloë pseudo-africana. Salm. hort. Dyck. A.D.* 1820. *p.* 6.

Floret Nov.—Feb. ut in *α*.

Obs. It appears by two exact outline drawings obligingly communicated to the author by his Highness the Prince de Salm Dyck,—the one representing the abovementioned *P. africanum β* —the other the *A. africana* of his Highness's *Catal. rais. d'Aloë*—it appears, it is repeated, that these two plants are distinct species ; and that the latter should be distinguished from the former, which is the *A. africana* of *Mill. dic. ed.* 8, and other subsequent authors. Wherefore, until a better diagnosis can be prepared, the following is proposed for the *A. africana* of His Highness the Prince, which in its appearance is indeed a princely plant, and doubtless congenerous with Miller's *Aloë africana.*

P. (revolving, red-spined) foliis ensiformibus subconcavis perviridibus erecto-recurvis, adultis expansè in semicirculum revolventibus, spinis marginalibus dorsalibusque apicis rubris. *principis.* 2. *

Aloë africana. Pr. de Salm dyck. cat. raison. d'Al. 62, nec *Aliorum.*

Obs. A priore foliorum directione discrepat. In

P. africano, folia adulta expansa, post medium solum recurva fere in arcum, folia ima (ut in omnibus ferè) plus minus reflexa. In P. principe folia adulta ab initio revolventia, paginis inferioribus spinulis subseriatim longitudinaliter sparsis distantibus, et fortè numerosioribus quam in P. africano.

Obs. Figura in Comm. hort. Amst. 14. forte repræsentat Aloën arborescentem; ut olim optimè judicavit Millerus.

angustifolium. 3. * P. (the narrow rough) foliis revoluto-recurvis anguste-ensiformibus glaucis undique parcè tuberculato-spinosis; spinis marginalibus igneis.
Aloë angustifolia. Nobis in Suppl. pl. succ. 47.
Habitat C. B. S.
Flores non vidi. G. H. ♄.
Unam plantam solum vidi, sine ramulis sobolibusve.

** Latifolia, foliis sublanceolatis: floribus brevibus vix incurvatis, ore recto. Si genus cum sequentibus speciebus novum, nomen Agriodendron propono.

ferox. 4. * P. (great hedge-hog) foliis ovato-ensiformibus glaucis deflexis, undique, at subtus præcipuè, regulariter sparsè spinosissimis.
Aloë ferox. Nob. in Linn. tr. 8. *p.* 21.—*A. perfoliata ferox. Hort. kew. ed.* 1. *p.* 467.—*A. ferox ed.* 2.—*aliorumque.*—*Bot. mag. t.* 1975. —*Pl. gr.* 32.

pseudoferox. 5. * P. (false hedge-hog) foliis ovato-ensiformibus glaucis deflexis subtus tuberculato-spinosis, supra subinermibus.

Aloë pseudo-ferox. *Pr. de Salm Dyck in Catal. rais. d'Aloë. p.* 31.—*A. ferox β. Nob. in Syn. succ. p.* 77.—*A. &c. Comm. prælud. t.* 20.
HABITAT C. B. S. St. ♄.
Flores uon vidi.
OBS. Spinæ marginales in hoc et præcedente atrorubentes.

P. (upright hedgehog) foliis oblongo-ensiformibus glaucescentibus incurvo-adscendentibus supra lævibus, subtus sparsè tuberculato-spinosis. *supralæve.* 6. *
Aloë supralævis. Nob. in Linn. tr. v. 8. *p.* 22.—*Hort. kew. ed.* 2. 2. 293.
HABITAT C. B. S. G. H. ♄.
Flores non vidi.

ALOË, *Linn. &c.*

Calyx petaloideus, rectus, cylindraceus. *Capsula* parum costata. *Frutices* caulescentes floribus pendulis. *Duval, plantæ succulentæ in Horto Alençonio, A.D.* 1809. *p.* 5.
OBS. Caules floriferi, variè spathaceo-bracteati.

A. (the white spotted) foliis lorato-ensiformibus deorsum albo perbelle guttatis: spinis marginalibus mediocribus igneis. *spicata.* 1.
Aloë spicata. Nob. in Syn. succ. 76.—*Willd. sp. pl.* 2. 185?
OBS. Guttæ s. maculæ albæ, in pagina superiore sparsæ ovales et præcipuè infra medium. Spinæ marginales numerosæ, in caldario virides, apicibus respicientibus igneis. In caldario solum vidi, sine flore.

glauca. A. (glaucous.) *Syn. succ.* 79.—*&c.*
2. γ *spinosior* (long-spined); nova varietas, foliis
* magis patulis fortè minus glaucis, infernè tuberculis paucis apicem versus: spinis marginalibus longioribus latioribus, igneo-rubris; caule pedali lignoso.
Apud Kew, nuper a C. B. S.

lineata. A. (lineated) foliis erecto-expansis oblongo-ensi-
3. formibus viridibus, spinis rubris. *Nob. in Syn.*
* *succ. &c.* 79.
α *viridis*; foliis saturate viridibus lineatis, spinis marginalibus validis subrecurvis rubris.
β *glaucescens*; foliis oblongo-ensiformibus glaucescentibus lineis conspicuis parallelis viridibus pallidisve: spinis validis marginalibus numerosis respicientibus igneis basi viridibus.
In regio horto Kewense vigebat A. D. 1819.
Folia læte glaucescentia, spinis forte longioribus quam in α.
Varietas formosa, et conspicua, nuper a C. B. S.

obscura. A. (dotted soap.) *Syn. succ.* 82. *&c.*
4. β *glaucior*; foliis glaucioribus, maculis rotundis
* sparsis obscuris saturatioribus.
γ *magnidens*; foliis saturatioribus maculis obsoletis: marginalibus dentibus majoribus, s. distantioribus.
Viget cum β, in regio horto Kewense. Ambæ nuper e C. B. S.

albo-cincta. A. (great pearl-edged.) *Nob. in suppl. pl. succ.*
p. 42.—Fortasse est mera junior Al. striatæ Nobis, paniculatæ Jacq.—Tempus docebit.
5.
* Obs. Aloë rufocincta. *Nob. in Suppl. pl. succ.*

Nunc gerit magna bipedalia folia fere ut in Fourcrœâ : sed credo hujus generis, ob foliorum involutionem. Flores docebunt.

A. (pale, serrulate) depressa, foliis lorato-lanceolatis pallide viridibus, lineis et maculis obsoletis pallidis perviridibusque: spinis marginalibus numerosis parvis albis. *pallescens.* 6. *

Obs. Al. saponariæ s. serrulatæ similis, at fortè longe minor: magis depressa, pallidior: maculis obsoletioribus. Flores ignoti. Plantam juniorem casualiter solum vidi in horto amicissimi Dom. Hitchin.

An varietas A. serrulatæ ? vix.

A. (common soap.) *Syn. succ.* 83. *saponaria.* 7. *

β luteo-striata ; Aloë umbellata *picta ;* foliis longitudinaliter luteo-striatis. *Pr. de Salm Dyck in Catal. rais. d'Al. p.* 27.

Communicavit ipse Princeps, A.D. 1821.

A. *β semiguttata.* (half-warted) foliis ovato-longè-acuminatis, supra glabris subtus tuberculatis : carina apicis marginibusque crebrè spinosis. *suberecta.* 8. *

Habitat C. B. S. ? G. H. ♃.

Statura et magnitudine A. suberectæ ; differt præcipuè tuberculis valde numerosis albis in foliorum pagina inferiore. A. acuminatam quoque simulat, at 2-plo plusve major, foliis forte magis patulis, spinis marginalibus carinæque albis multo crebrioribus. Soboles rarius profert. Forte propria species.

A. (great tuberculose) foliis oblongo-lanceolatis spinoso-dentatis, subtus albo-verrucosis, corollis *echinata.* 9.

cernuis cylindraceo-ventricosis, petalis inæqualibus. *Salm. d'Aloë*, p. 21.

Obs. A. tuberculatæ Nob. similis, at fortè duplo major. Unam plantam solum vidi.

Communicavit Princeps de Salm Dyck, A. D. 1821.

Obs. It is possible that all the plants of this section (Acaules) may anciently have arisen in the gardens, or more likely in their native wilds, from the casual mixture of two or three. But, as there is no proof of this; and even be it as it may, we are of opinion that it best accords with the interests of Botany as a science, and with our easier understanding these difficult plants, to arrange them as species, rather than varieties. Although both ways amount to the same thing, so long as each individual is appropriately named, and accurately defined; and each located in the most natural manner; so that the little link it forms, may best adorn the general chain.

macra. A. (lean.) *Suppl. pl. succ.* 195.

10. Obs. Florebat apud Kew in regio horto Junio
* 1820. *Flores* spicati more Aloïum, at in foliorum axillis superiorum. *Scapus* pedalis adscendens sive patulus, florum spica subbrevi subpauciflora. *Corollæ* pendulæ breves cylindraceæ rectæ subsemiunciales luteo-rubræ; ore laciniisve patulis ut in variis. *Genitalia* inclusa. *Capsulam* abbreviatam non rectim vel perfectam vidi. In habitu parum simulat genus Phyllomam.

Obs. There still exists great difficulty in understanding the mitre-shaped *Aloës*, of which the following definitions may perhaps be useful.

A. (upright many-toothed) foliis erectis latè ovatis *nobilis.* acutis, spinis marginalibus numerosis albis. 11.
Nob. in Syn. succ. 78. *

Obs. Distinguitur facilè dentibus longioribus et duplo numerosioribus quam in affinibus.

A. (upright distant-toothed) foliis erectis ovatis *Commelini.* acuminatis, spinis marginalibus paucioribus albis. 12.
Al. Commelini. Salm. d'Al. 32.
β *mitræformis* (upright yellowish-toothed); foliis erectis ovatis acuminatis, spinis marginalibus paucioribus flavicantibus.
A. mitræformis. Nob. in Linn. tr. 7. *p.* 23.

Obs. Var. α in juventute solum vidi: a Principe de Salm Dyck.

A. (open Mitre) foliis patulis late-ovatis acutis *mitræformis.* præcrassis, spinis marginalibus paucioribus flaveolis. 13.
Al. mitræformis. Salm. d'Al. p. 33.
A Principe de Salm Dyck sub hoc nomine accepi. A prioribus differt foliis magis patulis &c.

A. (small Mitre) foliis erecto-patulis remotioribus *distans.* ovatis acutis; spinis marginalibus paucis majoribus flavis. 14. *
Al. distans. Nob. in Syn. succ. 78. *&c.*—*A. brevifolia* α, *distans. Salm. d'Aloë, p.* 33.
γ *depressa* (pale-spined small Mitre); foliis confertis patentibus caule humiliore, spinis pallidioribus.
A. brevifolia γ, *depressa. Salm. d'Al. p.* 33.

Obs. Illust. Pr. de Salm Dyck habet alteram varietatem, quam non vidi, viz.

β *reflexa;* foliis remotis oblongo-acutis, reflexis. *Salm. d'Al. l. c.*

Obs. At the present termination of this genus, the author avails himself of the opportunity of making a few remarks concerning the dubious species of his Appendix in *vol. 7. of Linn. tr. p.* 25. *&c.*—The first species given by the name of *A. anomala*, on the authority only of the poor figure there cited, he thinks is merely a bad representation of *recurva*, better delineated in *Bot. mag.* 1353, though from a juvenile plant. But he cannot agree with *Bot. mag.* in citing *A. tricolor* of the same page of the same Appendix, for the same thing; but rather agrees with his illustrious correspondent, the Prince de Salm Dyck, in believing this plant (*A. tricolor, Linn. tr. v.* 7. 25.) to be distinct, and with him (*in Catal. rais. d'Aloë*) adopts Lamarck's specific name of *venosa* for it. But it belongs to the genus *Haworthia*, and is figured in *Comm. prælud.* 29; and also in *Weinm. phyt. t.* 71. *α*; according to *Bot. mag.* (in loco). But the last figure the present writer has not examined.

The third species (*pertusa*) of the said Appendix is described above, in the present work, under the name of *Turgosea pertusa*.

The fourth species (*muricata*) is probably a bad representation of *A. ferox. Bot. mag.* 1975.

The fifth species (*ramosa*) is most likely *A. purpurascens.*

The sixth (*punctata*), which is the most extraordinary, and perhaps the worst figured of all, may be nothing more than a miserable cut of *A. variegata*, better given in *Pet. gaz.* 88. 1.

The seventh (*horrida*) is *A. ferox.*
The eighth (*rhodocantha*) is *A. glauca minor* of *Syn. succ.* 79.
And the ninth and last (*dorsalis*) may be a distinct species allied to *barbadensis*, or *lineata;* but unknown at present in our gardens. It is *A. vera, costa spinosa, Munting. aloid.* 21, *cum icone* 23: and seems not only a distinct species, but may even, with *A. barbadensis* and its close allies, form a new genus with yellow flowers; or rather, they are the only true Aloës: but I have not been able to procure flowers for dissection. This article may be described as follows, and is (as Munting thought it) a very beautiful plant.

A. (keel-spined) foliis ensiformi-triquetris maculatis, margine carinaque altè spinosis.—Can it be a variety of *A. lineata*? *dorsalis.* 15. *

RHIPIDODENDRUM. *Willd. in* opere quod non vidi. *Aloë Aliorum.*

R. (the Fan.) *plicatile.* 1.
A. plicatilis Aliorum.
β *major;* caule longè robustiore, foliisque duplo triplove longioribus latioribusque, serraturis marginalibus asperioribus.
A. plicatilis major. Salm. d'Al. p. 30.
Introduced by the Chevalier Parmentier in 1820 and 1821. A large and stately variety, raised, as M. Parmentier assures me, from native Cape seeds.

GASTERIA. *Duval.* Aloë *Aliorum.*

Calyx petaloideus, curvus obclavatus, basi staminifer. *Capsula* parum costata. *Fruticuli vix caulescentes, foliis Aloïum*; floribus pendulis.
Duval Plantæ succulentæ in horto Alençonio, A. D. 1809. *p.* 6.
Obs. Scapi semper remotè spathaceo-bracteolati.

mollis. 1. * G. (soft muddy-leaved) foliis exactè distichis brevibus linguæformibus obtusis cuspidatis farctis molliusculis lævibus sordide viridibus sub-maculatis: margine sæpe asperiusculo.
Habitat C. B. S.
Vigebat in regio horto Kewense A. D. 1819. G. H. ♃.
Flores non vidi.
Forte affinis G. brevifoliæ vel nigricanti.

candicans. 2. * G. (rough marbled-white) foliis exactè distichis ensato-linguæformibus macris, glabris; subtus verrucoso-asperiusculis, verrucis cartilagineis albis in unam subconfluentibus.
Florebat in regio horto Kewense A.D. 1821, Julio mense, e C. B. S.
Acaulis, foliis pedalibus, subtus candicantibus, per verrucas numerosissimas confluentes. Foliorum margines albo-cartilaginei, viridi parum interrupti. *Corollæ* sesquiunciales toto rubræ. Formosa bonaque species. Ab A. nitida *Salm.* et *acinacifolia Jacq.* discrepat in angulorum absentia; a cæteris contiguis longâ corollâ.
Obs. This species will probably arrange near *A. pseudo-nigricans* of the Prince de Salm Dyck,

in his *Enumeratio aloës curviflorae*; at least if the flowers of that plant are long. These, however, I now find (on turning to his description), have an ample short green tube ("tubo amplo brevi viridi"), which in my new arrangement will not admit the present *G. candicans* even into the same section with *pseudo-nigricans*; my sections being

1. BREVIFLORÆ.
2. MEDIOCRES.
3. LONGIFLORÆ.

OBS. The writer hopes soon to understand the *Gasteriæ* better: for the abovementioned illustrious botanist has lately, with his usual suavity, and unabating love of our charming science, communicated to him the following *Gasteriæ*, which he never before was able to cultivate:—viz. *G. trigona, α elongata, β obtusa.—G. nitida, α parvipunctata, β grandipunctata.—G. glabra, β minor.—G. subcarinata*, and var. *β striata. — G. angustifolia*, var. *β lævis.—G. conspurcata. — G. obtusifolia. — G. nigricans*, var. *β crassifolia*, et var. *γ fasciata. — G. pseudo-nigricans*, and a smooth var. of it.—*G. subverrucosa, α grandipunctata*, and *β parvipunctata. — G. intermedia, β asperrima.—G. verrucosa, β latifolia*; and *G. nigricans*, var. *marmorata*.

Some of the above are amongst the most remarkable and extraordinary of the Gasterian family, and even some of the varieties are neither less beautiful, nor less interesting, than those which the Prince has published as distinct species.

Accepi a Principe de Salm Dyck A.D. 1821.

acinacifolia. 3. G. (long sword-leaved) acaulis, foliis spiraliter distichis uno-latere truncatis longissimis acinaciformibus supra concaviusculis, apice attenuatis acutis glaberrimis nitidis læte viridibus, maculis distinctis subfasciatim dispositis, angulis interrupte cartilagineis denticulatis. *Pr. de Salm dyck. Gast. enum. p.* 44. 3.

β *nitens ;* foliis adultis oblique bi-multifariis inæquilateraliter triquetris ensato-linguæformibus longissimis subnitentibus viridibus ; albo confluenter maculatis : marginibus tuberculato-cartilagineis asperiusculis.

Gasteria nitens. Nob. in Suppl. succ. 48.

Planta junior.

Obs. Fere eadem cum G. acinacifolia. *Folia* sesquipedalia, altè viridia, obtusè carinatim inæquilateraliter triquetra. *Flores* sesquiunciales, longiores omnium mihi notatorum, forteque minus incurvæ. Adulta maximè a juniore discrepat.

repens. 4. G. (creeping-rooted) foliis ensato-linguæformibus albo-verruculosis : radice repente sobolifera.

* Parvam plantam solum in regio horto Kewense vidi, a Domino Hitchin missam, A. D. 1821. Facies fortasse G. intermediæ ; ejusque forte varietas minor.

HAWORTHIA. *Duval.* Aloë *Linn. &c.*

Calyx petaloideus, rectus, supernè revolutus in duo labia, basi staminifer. *Capsula* in costas valdè prominens. *Fruticuli vix caulescentes, foliis Aloïum, floribus erectis. Duval. Plantæ succ. in Horto alençonio. A.D.* 1809. *p.* 7.

* Trifariæ, foliis trifariis minimis induratissimis asperis atro-viridibus, scapis caulibusve fere capillaribus rigidis simplicibus, infra flores sine bracteolis.

H. *Syn. pl. succ. p.* 90. *&c.* *viscosa.* 1.

Obs. Of this well known species there are at Kew, and I think in other collections, what appear to be three varieties, unless casualties only have occasioned the appearances they assume, viz.

α *major;* foliis sæpius remotioribus quam in sequente varietate.

β *minor;* foliis confertioribus et fortè minus crassis, junioribus magis erectis et acuminatioribus.

γ *parvifolia*; fere duplo angustior; foliis duplo minoribus densiusque imbricantibus.

H. (hard, branchy, triangular) ramulosa: foliis trifariis patulis compresso-cavis cordato-acuminatis asperis atro-viridibus induratissimis; senectis recurvo-expansis unisulcatis crassioribus. *indurata.* 2. *

Benevolè misit amicus Dom. Aiton, A.D. 1820.

Habitat C. B. S.

H. viscosæ affinis, at foliis magis patulis minus macris. Affinior forte ad Aloën pseudo-tortuosam *Salm d'Al. p.* 8, quam non satis vidi.

Huic sectioni referendæ H. cordifolia, concinna, et asperiuscula. *Nob.*

** Rigidæ, foliis spiraliter 3-multifariis parvis induratis asperiusculis atroviridibus, scapis caulibusve filiformibus.

H. (great rigid.) *rigida.* 3.

A. rigida. Pl. gr. t. 62.

Obs. Affinis certè H. expansæ, *Nob.* at alia, foliis duplo majoribus, longioribus, &c.

Flores non vidi.

Viventem nuper communicavit illust. Pr. de Salm Dyck. In ejus familia species insignis.

Huc etiam referendæ H. tortuosa, et expansa *Nobis;* quoque Aloë pseudo-rigida. *Salm d'Al. p.* 9.

Obs. *H. curta* and *H. tortella* of *Suppl. pl. succ. p.* 60-1, appear now to be slight young seedling varieties only of *H. tortuosa Nob.* And it is probable that *A. pseudo-tortuosa* of the Prince de Salm Dyck may not prove a distinct species; but as yet I have only seen one young plant, which nevertheless leads me to doubt about his *tortuosa*, and its variety β.

A little difference in soil, culture and age, often makes a great one in the face and appearances of succulent plants; and it requires no less than the judgment of consummate skill, and unwearied attention, to decide on every occasion with *complete* success. And more especially from those who cannot keep alive, and in perfect health, a good collection of their own; whose flowers it requires no favour to dissect, and carry away, for further study.

*** Luridæ: foliis multifariis mediocribus luridè-viridibus lividisve; supernè erecto-patulis sæpe recurvis induratisque; margine infraque tuberculato-asperis scabris vel rugosis, tuberculis luridis confluentibus: scapo simplice filiformi.

H. (bastard pearl) foliis ovato-lanceolatis, junioribus patulis, supra convexulis rugosis, subtus tuberculatis, tuberculis parvis viridibus. *hybrida.* 4.

A. hybrida. Salm d'Al. p. 7.

Communicavit ipse Princeps A. D. 1821. Species singularis.

H. (rugged) foliis semicylindricis induratissimis; supernè auctis s. incrassatis triquetris, extus tuberculato-scaberrimis intus scabris; basi lævibus. *Nob. in Suppl. pl. succ.* 58. *scabra.* 5. *

Flores non vidi.

H. (sordid) foliis erecto-patulis apice subrecurvantibus luride viridibus superne carinatis: subtus carina margineque scabriusculis. *sordida.* 6. *

Viget in regio horto Kewense, e C. B. S. At parvam imperfectamque plantam solum vidi, foliis oblongo-acuminatis subulatisve, at supra concavis mucrone parvo terminali.

H. (recurved) foliis recurvis semiteretibus ovato-longe attenuatis subulatisve: supra lævibus, margine tuberculatim subelevato-serrulato: subtus scabris e tuberculis parvis crebris viridibus. *Nob. in Syn. succ.* 91. *recurva.* 7. *

Obs. Folia plerumque spiraliter bi-multifaria e viridi sordidè purpurascentia lividave.

H. (veined) foliis mucronatis patenti-reflexis lævibus, supra planis, venis satis conspicuis, subtus convexis, margine denticulato. *venosa.* 8. *

A. venosa. Lam. dict. encycl. no. 16.—*A. &c. Com. prælud.* 80. *p.* 29.—*A. tricolor. Nob. in Linn. tr. v.* 7. *p.* 25.

Non vidi.

*** Albicantes: Acaules: foliis ambienter multifariis rigidis lævibus sæpius albicantibus apice carinatis: marginibus carinaque cartilagineis; scapo ramoso.

albicans. 9. * H. (bordered white) simplex scapo ramoso: foliis ovato-acuminatis albidis lævibus, margine carinaque valide cartilagineis. *Nob. in Syn. succ. &c.* 91.—*Bot. mag. icone.*—*Comm. præl**ud.* 30.—*Rariores* 48.

lævis. 10. * H. (narrow bordered white) simplex: scapo (Commelini fide) simplice; foliis ovato longè acuminatis cuspidatis albidis lævibus tenuiter albo marginatis.

Aloë &c. Comm. hort. amst. 2. *t.* 7.

Habitat C. B. S.

Vigebat in regio horto Kewense, cum sequente, A. D. 1820.

ramifera. 11. * H. (branching white) caudice infernè supra terram ramuloso, foliis ovato-acuminatis albidis tuberculis paucis sparsis albicantibus.

Habitat C. B. S.

Obs. Hæce ultimæ tres lævigatæ sorores sunt simillimæ uti ovum ovo. Sed facillimè distinguuntur: prima caudice simplice et margine cartilagineo crasso—secunda cartilagine fere nullo, caudice simplice, et foliis longius productim acuminatis; tertiaque caudice ramoso; necnon sæpe foliis parcè tuberculatis tuberculis lucidis.

virescens. 12. * H. (bordered green) simplex subimmarginata: foliis ovato-acuminatis virescentibus, tuberculis paucissimis albis sparsis lucidis.

Viget in regio horto Kewense, a C. B. S. cum var. sequente.

β *minor;* duplo minor, glauco-viridis. Fortasse propria species.

Parum approximat habitu ad Apicram spiralem. *Nob.*

**** Margaritiferæ, foliis rigidis ambienter multifariis, plus minus tuberculato-margaritaceis : scapo ramoso, infra flores nudo.

Obs. Sectio difficilis. H. margaritifera gaudet in papillis niveis convexis. H. papillosa habet papillas truncatas apice subconcavas in utraque pagina. H. semimargaritifera etiam gerit truncatas papillas sæpe ad lucem viridi-albo mutabiliter variabiles; et præcipuè subtus impositas.

H. (chequered pearl) foliis multifariis erecto-incurvis coarctatim imbricantibus lævibus; subtus margaritis minutis distinctis longitudinaliter transverseque fasciatim dispositis. *Reinwardti.* 13.

Aloë Reinwardti. Salm obs. bot. 37.—*H. fasciata. Nob. in Suppl. succ.* 57, synonymo excluso.

Obs. This plant, sent to me by the Chevalier Van Marum, by the name of *A. fasciata*, appears to be distinct from that species; which is my var. β major. *Suppl. pl. succ. l. c.*

Huic sectioni referendæ cæteræ margaritaceæ, exceptis H. scabra, hybrida, recurva, et venosa, quæ Sectionem distinctam constituunt.

fasciata. H. (transverse barred.)
14. *Aloë fasciata. Salm catal. rais. d'Al. p.* 5.—*H. fasciata β. Nob. in Suppl. pl. succ. p.* 59, excluso synonymo.
β *major;* foliis multo latioribus et longioribus, supra glabris, subtus papillosis, papillis minoribus et minus regulariter in fascias transversales confluentibus. *Salm cat. rais. d'Al.* 5.
A præcedente (H. attenuata) imprimis differt foliis supra lævibus (et nitidis). *Salm l. c.*
Unum viventem folium, var. β, a Principe de Salm Dyck, solum vidi.

attenuata. H. (chalky pearl.) *Nob. in Syn. succ.* 92.
15. * Obs. Minimam sobolem varietatis hujus speciei misit amicus Dom. Hitchin, at periit. An eadem cum ulla varietate H. radulæ, nescio.

radula. H. (raspy pearl.)
16. *Aloë radula. Jacq. hort. schœnb. cum icone.*—*H. radula. Nob. in Syn. succ.* 93.
α *lævior. Princeps de Salm Dyck in Litt. et radula major, ejus Catal. rais. d'Al.* 4.
β *pluriperlata*; baccis minutissimis numerosissimis.
A. radula media. Salm. l. c.—*A. radula. Jacq. schœn. cum icone, et Nob. l. c.*
γ *asperior. Princeps de Salm Dyck in Litt. et Al. radula minor, ejus in Catal. rais. d'Al.* 4.
δ *magniperlata ;* baccis longe majoribus.
"*Al. radula margaritacea.* [olim semimargaritifera, minima"] *Princeps de Salm dyck in Litt. A.D.* 1821.
Obs. An hujus species? Parvam plantam δ, et folium unum viventem α, minutamque sobolem γ, a Principe de Salm Dyck solum vidi.

H. (great erect pearl) externè sobolifera: foliis stricto-patulis subquàdripollicaribus longè ovato-acuminatis, tuberculis margaritaceis, majoribus. *Nob. in Suppl. pl. succ.* 56. *erecta.* 17. *

Obs. H. margaritiferæ *Nob.* simillima, et fere eadem magnitudine, foliis parum angustioribus; sed discrepat per soboles numerosas parvas externas basin versus, ut in H. granata, a qua quoque longe differt in statura et margaritis. Flores non vidi.

H. (long warted.) *Nob. in Suppl. succ.* 58.—*Al. papillosa. Salm cat. rais. d'Al.* 7, papillis undique ornatis. *papillosa.* 18.

β semipapillosa; foliis supra lævibus sordide viridibus. Folium viventem misit amicus Dom. Hitchin.

***** Retusæ; sæpe ciliatæ: foliis mediocribus 5-multifariis vix mollibus vixve rigidiusculis, superne plus minus gibboso-retusis et ad solem plus minus pellucidis reticulatisve, scapo simplice.

H. (blunt cushion) foliis 5-fariis apice retuso-deltoideis obtusiusculis muticis: supra sublineatis. *mutica.* 19. *

Viget in regio horto Kewense e C. B. S.

H. retusæ simillima ut ovum ovo, at forte pallidior, durior, turgidior; foliis obtusioribus apice sine mucrone; minus regulariter retusis, lineis magis anastomosantibus.

Huc referendæ H. retusa, mirabilis, turgida, et læte-virens, *Nob.*

****** Arachnoideæ, foliis ambienter multifariis mollibus, lævibus: sæpissime plus minus marginibus carinisque denticulato-ciliatis.

setata. 20. * H. (the bristle-edged) foliis lorato-lanceolatis acuminatis setaque longa finientibus, marginibus carinaque ciliatim membranaceo-setatis. *Nob. in suppl. succ.* 52.

α, foliis planis viridibus, setis niveis tenuissimis numerosis.

β nigricans; foliis planis luride atro-virentibus, setis tenuissimis niveis numerosis.

γ media; foliis turgidis pallide viridibus utroque convexulis, ciliisque niveis duplo majoribus duploque paucioribus.

δ major; foliis pallide viridibus utraque convexulis ciliisque niveis triplo majoribus quam *α* s. *β*, et duplo paucioribus. Omnium varietatum major, et forte cum *γ* propria species.

H. arachnoides β. Nob. in Suppl. pl. succ. 52.

Obs. Folia in omnibus varietatibus opaca minora angustiora turgidiora saturatiora; cum longioribus et elegantioribus setis quam in H. arachnoide. Præterea, setæ carinales in 2-3 ordinibus sæpe dispositæ.

pallida. 21. * H. (the pale-green) foliis subglaucescentibus margine carinaque membranaceo-setulatis, asperisve.

Habitat C. B. S.

Nuper communicavit amicus Dom. Aiton, e regio horto Kewense.

Obs. Priore duplo minor, longeque minus setata. Sequentem magis approximat, at longe palli-

dior spinulosior, foliis planioribus, nullo modo turgidis farctisve; sed ad lucem aliquantillum subpellucenter guttatis, subtuberculatisque.

H. (the dark-green) foliis atro-viridibus supra valde turgidis, setulis marginalibus exiguis, tuberculisque undique numerosis. *atrovirens.* 22.

Aloë atrovirens. Plant. grass.—A. pumila Milleri, Nobisque in Synops. succ. &c. 95.

Obs. Nomen atrovirens longissimè melius.

H. (green-toothed) foliis erecto-recurvis lorato-subulatis acuminatis atro-virentibus, margine carinaque denticulatis; denticulis parvis viridibus numerosis quandoque geminatis. *chlorocantha.* 23. *

Vigebat in regio horto Kewense A. D. 1820, e C. B. S.

Obs. H. atrovirenti affinis, at foliis multò longioribus, longèque planioribus: supernè carinatis, cuspide setoso parvo finiente: infernè ad lucem lineatis.

Huc quoque referendæ H. arachnoides et translucens.

******* Reticulatæ: foliis ambienter rosaceove multifariis, mollibus lævibus læte viridibus integris, obsoleteve denticulatis; sæpe mucronato-aristatis; superne ad lucem pellucidis, reticulatisque: scapo simplice.

H. (pale, netted.) *Nob. in Syn. succ.* 94. *reticulata.* 24. *

concava. 25. * H. (hollow-leaved) foliis excavato cymbiformibus obtusis glaucis valde concavis: superne carinatis obsolete reticulatis: propaginibus cespitosis.

β. foliis erectioribus. A Dom. Hitchin.

H. cymbiformis. Nob. in Syn. succ. 94.

As this is the only concave-leaved species in this difficult Section, and as that of *cymbiformis* has been objected to, the change of its name needs but little apology.

mucronata. 26. * H. (membrane-pointed.) *Nob. in Suppl. pl. succ. p.* 50.

limpida. 27. * H. (limpid.) *Nob. in Suppl. pl. succ. p.* 51.

aristata. 28. * H. (long pin-pointed) foliis atro-viridibus ovato-longe subulatim attenuatis filoque semiunciali finientibus, sublineatis. *Nob. in Suppl. pl. succ. p.* 51.

cuspidata. 29. * H. (shouldering pin-pointed) foliis viridibus obovato-oblongis loratisve acuminatis aristaque finientibus, parce ciliato-serrulatis apice pellucentibus reticulatisve.

H. cuspidata. Nob. in Suppl. succ. p. 51.

Obs. Folia superne carinâ aliquot denticulatâ.

denticulata. 30. * H. (pale, pin-pointed) foliis pallide viridibus ad lucem subreticulatis: carinula marginibusque minutissime albo-denticulatis, aristatis.

Cum prioribus viget in regio horto Kewense, e C. B. S.

Obs. Priore pallidior, magis reticulata arista breviore.

DECANDRIA. Monogynia.

ZYGOPHYLLUM. *Linn. &c.*

Z. (broad-leaved) foliis conjugatis subsessilibus late ellipticis, externe basi oblique inæqualibus; stipulis duabus brevibus triangularibus aduncis petiolo alternantibus: caulibus fruticosis subdecumbentibus. *capense.* 1.

Zygophyllum capense. Pers. syn. 1. 463?

Obs. *Folia* conjugata, cum mucronulo centrali terminali: foliolis 12-18-linearibus.

Viget in regio horto Kewense.

Flores non vidi.

DODECANDRIA. Monogynia.

PORTULACA. *Linn. &c.*

P. (leafy-flowered) floribus terminalibus solitariis involucro magno inæquali heptaphyllo circumcinctis. *involucrata.* 1.

Obs. Vidi florentem in regio horto Kewense Sept. 1819. St. ♃. s. ♄. Patriam nescio. *

Herba, s. Suffrutex exiguus semipedalis, ramis effusis. *Ramulum* siccatum solum habeo 3-entalem foliosum, et unum adultum folium lanceolatum 2-uncialem.

Habitus fere P. pilosæ at triplo major, foliis remo-

tioribus, fasciculisque pilorum axillarium longioribus albidioribus. *Flores* foliolis (involucri more) sub-7, et 6-12 lineas longis (cum eorum pilis axillaribus) suffulti.

Ob habitum, præcipueque pilos axillares s. intrafoliaceas stipulas, forte cum P. pilosa, et setacea, *Nob. in Misc. nat.* 139, genus proprium; at non rectim examinavi.

Descriptio ex sicco parvo exemplari supra notato.

RÜLINGIA. *Ehrhart. beit. et Nob. in Syn. succ. p.* 124.

angustifolia. 1. * R. (narrow-leaved) foliis uniformiter farctim angustè lineari-lanceolatis expansis: cauliculo brevi ramuloso.

E regio horto Kewense, a Capensibus seminibus orta, ante 1819. St. ♄.

Obs. R. lanceolatæ proxima, at minor, et differt cauliculo magis elevato ramoso nunc bipollicari: et ab R. variante quoque discrepat uniformibus foliis minoribus, minusque incrassatis angustioribus.

rufescens. 2. * R. (the great red) foliis confertis expansis recurvisque, ovato-acutis subacuminatisve, crassis viridibus; infra sæpissimè atro-purpureis. *Nob. in Suppl. pl. succ.* 64.

Obs. Omnium cognitarum major. Facies inter R. anacampserotem et rubentem. *Folia* ima magna: alia juniora non duplo majora quam in R. rubente. *Flores* ut in R. anacampserote.

β. foliis semper fere viridibus.

R. (many-leaved.) *Nob. in Suppl. pl. succ.* 65. *poly-*
et figurata est in Pluk. phyt. 41. 6. *phylla.*
3.
*

DODECANDRIA. Trigynia.

CREPIDARIA. *Nob. in Syn. succ.* 136.

C. (small keeled) foliis ovatis acuminato-obtusulis, *subcari-*
supra obsolete venosis, subtus lente pubescenti- *nata.*
bus : costa carinulata. 1.
Florebat in regio horto Kewense Jun. 1820. *
St. ♄. Patriam nèscio.
C. carinatæ simillima, at alia, minusque carinata.

TITHYMALUS. *Tournef. Nob. in Syn. succ. pl.* 137.

* Tuberosi.

T. (Catchfly-leaved) foliis lanceolatis obtusis viri- *Silenifo-*
dibus inflexo-subcanaliculatis: radice magno *lius.*
tuberoso protuberante. 1.
Vigebat cum sequente in regio horto Kewense e *
C. B. S. 1821.
Radix senecta infra et supra terram tuberosa. *Flores* his involucrati. *Folia* sæpe retusa, emarginatave : radice esquamata. Petioli longi altè canaliculati.
β. foliis glaucioribus, latioribus.

T. (curled) foliis lanceolatis viridibus, margine *crispus.*
crispis, petiolis canaliculatis ; radice tuberosa 2.
esquamata. *

E C. B. S.
Flores 1. s. 2. involucrati.
Obs. Incompletam plantam hujus et præcedentis solum vidi.

tuberosus. 3. T. (oblong heart-leaved.) *Burm. afr.* 9. *t.* 4.— *Syn. succ.* 137.
Præcedentibus similis, at valde distinctus.

DODECANDRIA. Dodecagynia.

SEMPERVIVUM. *Linn. &c.*

Calyx 7-12-partitus. *Petala* 7-12. *Capsulæ* totidem 7-12. *Glandula* minutissima quadrata squamulæformis ad basin singuli germinis externè.

Specierum conspectus.

* Grandifolia: *Calyx* sub-12-partitus. *Petala* sub-12. *Capsulæque* totidem 12. *Germinum glandulæ* minutissimæ squamulæformes, sæpius quadratæ albæ, quandoque subretusæ. *Folia* spathulata maxima in rosulis terminalia. *Caules* succulenti frutescentes parum ramosi simplicesve, 1-6-pedales. *Habitant* præcipue in Canariis et Madeira, (unum in Europa australi ?) sine dubio scopulosis, aridisve.

S. (great villous.) *Pl. gr. t.* 141. *canariense.* 1.

S. (great clammy.) *Bot. reg.* 278. *glutinosum.* 2.

S. (hispid stemmed.) *Bot. mag.* 1980. *Smithii.* 3.
Obs. The petals are pale yellow and linear-lance- or lance-shaped. The glands of the germen are entirely wanting. This is the only hispid-stemmed species; whence I had named it *hispicaule*, before its publication in the *Bot. mag.*

S. (chalice-formed.) *Nob. in Suppl. pl. succ.* 69. *caliciforme.* 4. *
Species insignis, omnium lævigatior. Folia sublonga erecta albo-marginata retusa, apice recurva.
Sempervivum aureum. Cat. hort. dyck. 35.
β *spurium;* varietas seminalis, inter hunc et forte S. glutinosum, exstat in *Hort. chels.*—Aliam varietatem etiam vidi.

S. (tree Houseleek.) *Bot. mag.* 99. *arboreum.* 5.
Germinis glandulæ emarginatæ secundum figuram citatam.
β *variegatum;* foliis eleganter et pallide luteo variegatis.
γ *atropurpureum;* foliis atropurpureis. *Cat. hort. dyck. Plantæ succ.* 35.
Communicavit illust. Pr. de Salm Dyck.

S. (table-shaped.) *Nob. in Suppl. pl. succ.* 69.—*Pluk. phyt.* 314. 1? *tabulæforme.* 6. *
Obs. Planta præsingularis. *Caudex* simplex subsemipedalis. *Folia* florendi tempore omnino marcescentia persistentia; centralia sensim sen-

simque minora vel bracteosa, elevataque cum scapo magno paniculato demum subbipedali, magnis et expansis ramis apicem versus subconfertifloris, more affinium. *Calyx* sub-12-fidus. *Petala* 10-12-lineari-lanceolata pallidissima subsulphurea. *Stamina* sub 20. *Styli* sub 10. *Germinum* glandulæ minutæ pedunculatæ, globoso-limpidæ instar Helicis cornua, at longissime breviores!

Post florescentiam in tertio quartove anno periit.

ciliare. S. (latchet-leaved.) *Bot. mag.* 1978.

7. Obs. We had fancied from the habit of this plant when young, it was closely allied to our *Cotyledon cespitosa* (*Suppl. succ. p.* 70.), but it proves otherwise. *S. ciliare* by age acquires a considerable stem. Prior to the figure in *Bot. mag.* we had named this species *S. ligulare.*

β *hybridum;* foliis ligulato-spatuliformibus subcartilagineo-crenulatis, crenulis albis pellucidis, oculo nudo vix manifestis; ad lentem lucemque globosis limpidis, in ordine pulchro confertissimis.

Vigebat in horto amici Dom. Law A. D. 1820, ortum e seminibus α, sine dubio impregnatis cum alio, forteque Sempervivo lineolare, *Nob.*

Apparet aliam longè ab omnibus. *Folia* infernè lineolata, lineolis latiusculis sparsis purpurascentibus. Per ætatem, caulem ramosum acquirit dodrantalem, duplo altiorem quam α.

Sempervivi species facillimè inter hybridas coeunt in hortis.

** Parvifolia: *Calyx* sub-7-partitus. *Petala* sub 7. *Capsulæque* totidem 7. *Germinum* glandulæ mi-

nutæ subcuneatæ fimbriatæ aurantiæ basi albæ. *Folia* magis laxè in rosulas collecta quam in prioribus. *Caules* humiliores magis ramosi, suffrutescentes, vel in uno annui, sæpius semipedales, valdè floriferi. *Habitant* in Canariis et Madeira, unumque annuum forte in monte Baldo, sed vix. An genus proprium?

S. (small lineolate.) *Nob. in Supp. pl. succ.* 69. *lineolare.*
Obs. *Folia* sæpe in rosulas terminalia subspatulata nuda margine tenuissime subcartilaginea oculo nudo integra; subtus parcè sparsèque lineolata, lineolis sæpius purpurascentibus. 8. *

S. (gland-edged.) *Willd. sp. pl.* 2. *p.* 931. *glandulosum.*
Germinum glandulæ fimbriatæ, luteæ, petalis concolores. 9.

S. (large villose.) *laxum.*
There is a seedling plant in Chelsea garden under this name, from Mr. Otto, of the Royal gardens at Berlin. For a further account of it see the end of this work. It resembles *S. villosum*, but will probably be larger, and with some of its leaves at present rather of an ovato-rhombeous form, and long petioled. 10. *

S. (small shrubby villous.) *Willd. sp. pl.* 2. *p.* 933. *villosum.* 11.
β. paululum majus.
Communicavit amicus Dom. Jos. Hooker 1820, cum variis aliis.
Germinum glandulæ fimbriatæ, aurantiæ.

stellatum. 12. S. (small annual villous.) *Smith in Linn. soc. lond. tr. v.* 1. 251.—*S. villosum. Sims in Bot. mag.* 1809.

The figure represents a forced and weakly uncharacteristic plant.

HABITAT in Madeira, secundum *Bot. mag. l. c.* Vix in M. Baldo.

Priori simillimum, at omnino distinctum, radice annua et hirsutie &c. A semine non variat.

tortuosum. 13. S. (twisted.) *Willd. sp. pl.* 2. *p.* 933.—*Bot. mag.* 296.

OBS. This plant is more dense and twisted in the branches, and more gibbous and crowded-leaved than the fig. above cited; which represents a rather forced and uncharacteristic plant.

*** ACAULIA, scapigera; *foliis* radicalibus ciliatis, in rosulas semper copiosè densissimeque collectis. *Calyx, Petala, &c.* fere ut in prima Sectione. *Folia* sæpius obcuneato-spatulata.

tectorum. 14. S. (common Houseleek.) *Engl. bot.* 1320.

Nectaria (secundum *Hort. kew. ed.* 2. *vol.* 3. *p.* 172.) cuneiformia, caruncúlata! Non examinavi.

grandiflorum. 15. S. (great-flowered Houseleek) pubescens: stolonibus flagelliformibus: petalis sub-15-lineari-lanceolatis elongatis.

S. globiferum. Bot. mag. 507 *et* 2115. *Nec Aliorum.*

S. (whip-lash) pubescens : stolonibus flagellifor- *flagelli-*
mis : petalis ...... *forme.*
Vidi in regio horto Kewense A.D. 1820, sine flore. 16.
Priore nunc minus, at forte omnino idem.
Flores docebunt.

S. (hairy, fringe-petaled.) *Willd. sp. pl.* 2. *p.* 934. *hirtum.*
Ultimo affine. 17.
Flores non vidi.
Dignoscitur petalis fimbriatis. *Schmid.* 17. 1.

S. (mountain red-flowered.) *Willd. sp. pl.* 2. *monta-*
p. 933. *num.*
Germinum glandulæ quadratæ retusæ. 18.

S. (hen and chicken Houseleek) foliis ciliatis, sto- *globife-*
lonibus tenuioribus brevibus globuliferis, globulis *rum.*
confertis decidentibus ; quasi sessilibus ; petalis 19.
senis viridi-pallescentibus fimbriatis.
S. *globiferum. Linn. sp. pl.* 1. 665.—*Mill. dic. ed.* 8. 2.—*Sedum &c. globulis decidentibus. Moris. hist.* 3. *p.* 472. *et sect.* 12. *t.* 7. *f.* 18, cum petalis erroneis. — *S. soboliferum. Bot. magaz.* 1457.—Hen and Chicken Houseleek of all gardeners.

Obs. Until the publication of the 1475th fig. of the *Bot. mag.* we had ever known this plant as the *S. globiferum* of *Linn.* and *Miller.* Misled by that figure, we followed the error soon after in *Syn. succ. p.* 169, and have not until now been able to rectify it without specimens ; and by aid of the above cited works alone. The plant is very distinct from *hirtum*, notwithstanding the doubt expressed in *Bot. mag.* 1457, and by no means the nearest allied to that species.

arachnoideum. 20. S. (cobweb Houseleek.) *Bot. mag.* 68.
OBS. Germinis glandulæ quadratæ retusæ.

cuspidatum. 21. * S. (pin-pointed.) *Nob. in Misc. nat.* 186.—*Syn. succ.* 171.—*Crassula spinosa. Willd. sp. pl.* 1. *p.* 1554. — *Crassula &c. Gmel. fl. sib. t.* 67. *f.* 2 ?
Præsingularis species. Nullo vere affine : floribus rarissimis.

africanum. 22. S. (african) foliorum marginibus serrato-dentatis, propaginibus patulis. *Mill. dic. ed.* 8. *no.* 7.
Non vidi.

MONANTHES. Sempervivum *Linn. &c.*

Germina sub-7, basi externè glandulâ amplâ orbiculato-cochleatâ lente serrulatâ, petalis duplo breviore, 4-plo latiore, rufâ. Cætera fere ut in Sempervivo.
Herba acaulis succulenta, pygmæa polyphylla ; foliis parvis clavatis retusis densè imbricatis Sedi more, rufo-viridibus, scapis sæpius 1-5-floris, at ramulosis solum basi.

polyphylla. 1. M. (many-leaved.)
Sempervivum Monanthes. Hort. kew. ed. 1.—*Bot. mag.* 93.
HABITAT in Madeira. G. H. ♃.

ICOSANDRIA. Monogynia.

CACTUS. *Linn. et Nob. in Synops. succ. p.* 172.

C. (great-spined) rotundatus, læte-virens, 14-angulatus, costis rectis dense spinosis; spinis fasciculatis longis prægrossis albicantibus apice fusco-roseis, 12 radiantibus, 4 rectis maximis. *Prince de Salm Dyck, in Obs. botan. in Hort. dyck. A.D.* 1820. *macrocanthos.* 1.

Habitat in Americ. calidiore. St. ♄.

Obs. My friend Dr. Hooker, Regius Professor of Botany at Glasgow, showed me a very fine plant of this noble *Cactus,* which he lately procured in Holland. It had been recently sent thither from South America, and, as Dr. H. assured me, had pierced with one of its wonderful roots through a solid piece of the rock its native bed; which still continued to adhere. It wears a cap of down; small, and of cylindric form.

MAMMILLARIA. *Syn. succ.* 177.

M. (the great) simplex clavata, tuberculis ovatis apice spinoso-lanatis, lana spinis rectis breviore. *coronaria.* 1.

Cactus coronarius. Willd. enum. app. 30.

Habitat in America calidiore. St. ♄.

Pulcherrima, caule 5-pedali clavato, diametro pedali. *Willd. l. c.*

In hort. Chels. viget, ab horto Berolinense.

CEREUS. *Miller.—Syn. succ.* 178.

obtusus. C. (blunt tri-angled) ramis subarticulatis erectis,
1. paucis obtusè triangularibus.
* Habitat....
Vigebat in regio horto Kewense, A. D. 1820. St. ♄.
Obs. Tripedalis, rami 1-unc. crassi: ramorum spinæ paucæ fulvicantes, radiato-patulæ variantes, 1-5-lineares, lanâ fere nullâ. Species valde distincta et facie fere Opuntiæ, at gracilior; et habet axem centralem lignosum Cereorum.

imbricatus. C. (imbricated) erectus teretiusculus non angulatus superficie porcis sublobulæformibus varie subim-
2. bricatim tessellatis.
* Habitat....
Introd. a Dom. Loddiges 1820, sub hoc nomine. St. ♄.
Species præsingularis distinctissima: at rectè non examinavi. Affinis C. cylindrico, at robustior: sed forte cum illo genus proprium.

niger. C. (the black) erectus nigricans, spinis numerosis
3. fulvis, demum flavis pallidisve, lana longioribus.
* *Cactus niger. Catal. hort. dyck. A. D.* 1820. St. ♄.
Obs. C. repando proximus, spinis in planta dodrantali sæpe semunciam longis. Dignoscitur instanter cute pullo.
Communicavit illustr. Princeps de Salm Dyck.
Obs. So singular is the colour of this plant, that on its first arrival it was thought to be rotten, even after trying its flesh with the point of a knife; and was even for awhile thrown by as dead!

OPUNTIA. *Miller.—Syn. succ.* 187.

O. (great) articulato-prolifera, articulis ovato-ob- *decuma-*
longis obtusis, spinis longitudine lanuginis, de- *na.*
ciduis. 1.
Cactus decumanus. Willd. enum. suppl. 34.
Habitat in America meridionale.
Introd. 1820.
Viget in hort. Chels. St. ♄.
Articuli sesquipedales, in junioribus tantum *lanugo* et *spinæ* nec *tubercula* ut in C. Ficus-indica. *Willd. l. c.*
Vix Milleri Opuntia maxima; sed major, at minus crassa. Superlativa nomina mala!

O. (Pinpillow.) *Syn. succ.* 196. *&c.* *curassa-*
δ *longa* (long Pinpillow) ramis magis firmis duplo *vica.*
longioribus. 2.
Habitat in Brasilia. St. ♄.
Viget in hort. Chels.
A cæteris varietatibus differt in ramis 2-3-plo longioribus, s. articulis remotioribus et minus divaricantibus. Spinæ etiam longiores. In Brasilia legit amicus Dom. Geo. Anderson, nunc inter beatos. Forte propria species.
Flores non vidi.

RHIPSALIS. *Gærtn. &c.*

R. (fig-marygold-like) articulato-prolifer glome- *mesem-*
rato-ramosus; ramis erectis teretiusculis imbri- *bryan-*
cantibus brevibus, fasciculis spinularum capilla- *thoides.*
cearum albis, pallidis; mortuisve nigris. 1.
Rhipsalis salicornoides β. Nob. in Suppl. pl. succ. p. 83. *

R. salicornoide humilior, ramis numerosioribus brevioribus longissimè confertioribus, spinulis 4-6 longioribus 2-linearibus erectis manifestioribus ; at non rectè examinavi.

Flores non vidi.

Obs. *R. salicornoides* has flowered in the noble nursery of Messrs. Loddiges ; where hothouse and greenhouse plants are managed in a greater style of magnificence than perhaps any where ; and it has been figured in their neat Botanical Cabinet.

grandiflorus. 2. * R. (Calycanthus-flowered) parce ramosus, ramis suberectis subcalamiformibus nudis, spinulis minutissimis solitariis regulariter distantiusculis pallidis arcte adpressis, floribus numerosis vix uncialibus.

Flores (Julio) flos-lactis colore, tubo nullo, petalis imbricatis obtusis, intimis pedetentim majoribus ut in Opuntiis ; exterioribus sensim sensimque magis calycinis, obtusioribus magisque spuamulæformibus. *Stamina* numerosa petalis concolora et breviora. *Stylus* albus, *stigmatibus* 4 rotatim expansis sublineam longis stamina paululum superantibus.

Rhipsalis grandiflorus. Nob. in Suppl. pl. succ. p. 83.

ICOSANDRIA. Trigynia.

SESUVIUM. *Linn. &c.*

Obs. At the time the author wrote his remarks on this genus, in page 86 of *Suppl. pl. succ.*, con-

tending against the belief of *Bot. mag. p.* 1701, and in favour of three or four rather than one distinct species of *Sesuvium;* he was not aware that the great botanist Willdenow had actually published five species ! in the *Enumeratio, v.* 1. *p.* 521 ; at least two of which are probably specifically different from the presumed four of *Suppl. pl. succ. p.* 86-87.

ICOSANDRIA. PENTAGYNIA.

TETRAGONIA. *Linn. gen. pl.* 859.—*Nob. in Misc. nat.* 117.

T. (linear-leaved) foliis alternis linearibus ad latera subrevolutis, supra linea dorsali exaratis, virescentibus : floribus terminalibus racemosis. *linearis.* 1. *

Vigebat in regio horto Kewense, et florebat Sept. 1819.

HABITAT C. B. S.

Caules fruticulosi erecto-effusi, decumbentes.

T. (obovate-leaved) foliis alternis pruinosis obovatis ovalibusve petiolis alatis amplexicaulibus subdecurrentibus. *obovata.* 2. *

Viget in regio horto Kewense, e C. B. S.

OBS. Simillima T. decumbenti, at duplo major ; foliis in petiolos alatos pedetentim attenuatis, et infernè grossè venosis, supremis snbrotundis. Ramuli supremi sparsim fere papuloso-pilosuli.

Flores non vidi.

MESEMBRYANTHEMUM. *Gen. pl.* 860. —*Nob. in Syn. succ. &c.* 202.

Calyx 4-5-fidus inæqualis. *Petala* numerosa inæqualiter linearia, basi variè confluentia. *Capsula* infera carnosa 4-multilocularis, loculis singulis stylo finientibus, polyspermis.

Obs. *Folia* semper carnosa, et (linguiformibus veris exceptis) decussata. *Corolla* antemeridiana: diurna: pomeridiana: vespertina: nocturnave.

Obs. Since the publication of the author's *Suppl. plant. succ.*, he had in MS. increased the number of the nominated Sections of the numerous plants of this genus to threescore. And since then, His Highness the Prince de Salm Dyck, in his *Tentamen botanicum*, lately published, has given an improved catalogue of the genus in 35 named Sections (sometimes exactly like the above MS.), and not much unlike those of the writer in *Obs. mesemb. A. D.* 1794, and adopting most of his subsequent ones.

The Prince's *Divisions* and *Sections* are as follows:—

PERENNIA, vel SUBPERENNIA.

1. Cylindracea.
2. Planifolia.

PERENNIA.

Acaulia vel Subacaulia.

3. Sphæroidea.
4. Monilifera.

5. Subquadrifolia.
6. Inæqualifolia.
7. Dolabriformia.
8. Ringentia.
9. Rostrata.
10. Subulata.

Frutescentia foliis cylindraceis.

11. Calamiformia.
12. Teretiuscula.
13. Articulata.
14. Tenuifolia.
15. Adunca.
16. Spinosa.
17. Tuberosa.
18. Papillosa.

Frutescentia foliis triquetris.

19. Scabra.
20. Bracteata.
21. Sarmentosa.
22. Rubricaulia.
23. Conferta.
24. Capitata.
25. Reptantia.
26. Acinacifolia.
27. Forficata.
28. Lunata.
29. Deltoidea.
30. Falcata.
31. Microphylla.
32. Cymbiformia.
33. Æquilateralia.

34. PANICULATA.
35. PERFOLIATA.

These are all essential Sections, and the science is advanced by the publication of them. But the present writer feels, and ought to feel, the necessity of more; being acquainted with many *Mesembryanthema* which His Highness the Prince has probably never seen.

The following Sections are therefore here proposed:—

ACAULIA: 1. Sæpe subacaulia, radice perenni.

† floribus rubicundis vel albicantibus; in una specie luteis.

1. MINIMA.
2. SPHÆROIDEA.
3. SEMIOVATA.
4. OBTUSA.

†† floribus luteis; exceptis *Moniliformibus* albis.

5. MAGNIPUNCTA.
6. ALOIDEA.
7. SCAPIGERA.
8. RINGENTIA.
9. DOLABRIFORMIA.
10. CARINANTIA.
11. ROSTRATA.
12. MONILIFORMIA.
13. LINGUÆFORMIA.
14. CRUCIATA.
15. DIFFORMIA.

††† floribus rubicundis; *Calamiformibus* albis exceptis.

16. Gibbosa.
17. Calamiformia.
18. Teretifolia.
19. Bellidiflora.
20. Acuta.

CEPHALOPHYLLA: 2. Caulescentia foliis congeste capitatis.

21. Corniculata.
22. Capitata.

REPTANTIA: 3. Suffrutices, caulibus sæpius decumbenti-prostratis angulosis: floribus polygynis, (1 excepto) rubicundis.

23. Sarmentosa.
24. Rubricaulia.
25. Acinacifolia.
26. Humillima.

PERFOLIATA: 4. Suffrutices: foliorum vaginis omnino, supernève carnoso-incrassatis: floribus albis rubicundisve.

27. Forficata.
28. Geminata.
29. Rostellata.
30. Uncinata.
31. Vaginata.
32. Lineata.
33. Tumidula.
34. Lineolata.

DELTOIDEA: 5. Suffrutices suberecti, foliis triquetris brevibus subacinaciformibus s. plus minus deltoideis: floribus rubicundis.

35. Megacephala.
36. Muricata.
37. Microphylla.

TRIQUETRA: 6. Suffrutices; foliis subfalcatis triquetrisve.

† floribus plus minus rubicundis.

+ foliis plus minus falcatis, et compressis.

38. Lunata.
39. Pallidiflora.
40. Glomerata.
41. Asperifolia.
42. Dilatata.
43. Virgata.

++ floribus inclaudentibus.

44. Bracteata.

+++ foliis triquetris, floribus magnis rubicundis albisve.

45. Eximia.
46. Blanda.

†† floribus luteis sive aurantiis.

47. Aurea.
48. Cymbiformia.

TERETIUSCULA: 7. Suffrutices; foliis teretiusculis.

49. Tenuifolia.
50. Adunca.
51. Spinosa.
52. Corallina.
53. Sebacea.

PAPULOSA: 8. Suffrutices; annua: biennia: perenniave: foliis fere semper plus minus papulosis.

54. Platiphylla.
55. Pomeridiana.
56. Limpida.
57. Calyculata.
58. Cylindracea.
59. Planifolia.
60. Crassulina.
61. Digitiflora.
62. Juncea.
63. Spinulifera.
64. Trichotoma.
65. Noctiflora.
66. Aspericaulia.
67. Hispicaulia.
68. Echinata.
69. Barbata.

Obs. It is to be believed that the above numerous and natural groups comprise amongst them several true and natural Genera. Nevertheless, their actual limits and essential characteristics

(except in *M. glabrum* hereunder detached) lie veiled in difficulties, which (thus far at least) escape development and defy research. They will not be fettered.

And yet the author once had vainly hoped that the MINIMA, from the tubular corollæ of some of them; the LINGUIFORMIA, from their quadrifid calyces and multilocular capsules; the ARTICULATA, from their singular calyx; the BRACTEATA, from their hard, coloured internal petaloid fibrillæ (and their small number of abbreviated true *filaments*), keeping open continually their lively flowers; the MEGACEPHALA and the PERFOLIATA, &c. &c.; might each have constituted a distinct genus (and they probably are such). But he has hitherto been so effectually foiled by such insensible shades and intermediate gradations of character, amongst species even of the same section (the *Minima* not excepted), that he has not yet been able to reconcile their discrepancies. He does not, however, completely despair; and, with hopes of some ulterior success from the formation of the capsules, has again taken all the species into actual cultivation, which he can procure, having commenced by collecting the *difficult species:* but he soon found the remainder necessary to elicit their full distinctions; to contrast their characters, and combine them effectually; and to advance the science in the manner it deserves.

But the embodying of so many points (and several of them so apparently variable) with happy harmony and due congruity, is still a task of time. And even this is increased by the continual accession of new species, requiring even new divisions. Until, therefore, this still distant period

arrives, the author proposes the present improved distribution of this vast genus, as the result of all he has hitherto, with every advantage, been able to accomplish.

It will be found to comprise all the *Mesembryanthema* hitherto discovered or described by the author and his friends (above 300 species and threescore varieties); with an epitomized description of the whole; tracing each species to the works of Linnæus, or the first author on the subject after him: and giving to each variety such a name as will serve hereafter for a specific one, if necessary; together with a reference to a published figure, wherever it is practicable. And he is happy to add, that in the course of the arrangement, brief as it is, will be found new matter—many new and unrecorded species—many of sweet hues and vivid tints—and some of striking and unrivalled beauty;—together with a few still more interesting, from the strange construction of their extraordinary forms.

ACAULIA. 1. Caule nullo brevissimove, radice perenni; foliis magnis.

1. Minima. Carnosa obcordata obconicave, rarius rotundiora vel planiora, demum dichotoma; vaginarum foliorum truncatorum connatorum solum consistentia, et semper ruptata ab egressione novarum vagi-

narum, et exinde marcescentia; floribus solitariis sessilibus centralibus, plus minus tubatis; roseis stramineis albicantibusve. (Anglicè Dumplins.)

OBS. If this Section proves to be a Genus, the name of *Conophyton* would be apt.

minutum. 1. * M. (small white) albidum lævigatum subimmune; flore longe tubato.
M. minutum. Nob. in Misc. nat. 21.—*Bot. mag.* 1376.
Fabam equinam vix æquat.
Flores læte rubicundi tubo semiunciali.

minimum. 2. * M. (small chequered) læve subglaucescens: punctis confluentibus subramosis: germine exerto. *Nob. in Obs. mesem. &c. p.* 126.
Flos ex albido-lutescens sessilis. *Germen* e superficie plantæ exertum. Statura fere prioris. Forte est Ficoides, forte *Mauritan,* præ-exigua (the natives call it *Lowon*) *Pet. gaz. t.* 39. 3.
In caldario acquiret ætate cauliculos perbreves, et soboles pauciores quam in affinibus.

perpusillum. 3. * M. (small, exerted) læve virescens punctis validis confluenter ramosis; germine incluso.
OBS. Vigebat apud Kew, 1819. A priore solum differt germine incluso; et parum in colore saturatiore, sobolibusque numerosioribus.

obcordellum. 4. * M. (glaucous chequered) glaucescens: punctis confluenter-ramosis, germine incluso.
M. obcordellum. Nob. in Misc. nat. &c. 21.
FLORET cum prioribus, corolla albicante.

Priore duplo majus, at minus quam figura M. obcordellum *Bot. mag.* 1647.

M. (green chequered) virescens: punctis confluenter subtuberculiformibus: germine incluso, corolla alba. *obconellum.* 5.
M. obconellum. Nob. in Misc. nat. 21. *&c.* *
Introd. circa 1786.
E punctis parum elevatis, tactu asperiusculum.

M. (fig-shaped) obpyramidale pyriformeve, glaucum: apice retuse-obtuso punctis sæpe distinctis virescentibus obsoletissimis. *Ficiforme.* 6.
Communicavit illust. Princeps de Salm Dyck A.D. 1819. *
M. Ficiforme ejus est in *Tentamen bot.* 17.
Nomen a me propositum.
Habitat C. B. S.?
Flores non vidi.
Planta pallida unciam alta, priore duplo major, punctis paucioribus pallidioribus rarius confluentibus.

M. (large dotted) valde depressum, subglaucum: punctis subdistinctis, germine exerto. *truncatellum.* 7.
M. truncatellum. Nob. in Misc. nat. 22. *&c.* *
Introd. 1795.
Floret cum prioribus, corolla staminea. Ultimo humilius; magis truncatum, magisve depressum; punctis paucioribus distinctioribus.

M. (cloth-button) subcanescens subpubescens immune, valde depressum. *fibuliforme.* 8.
M. fibuliforme. Nob. in Misc. nat. 22. *&c.* *
Flores non vidi.

truncatum. 9. M. (truncate conic) acaule, foliis conicis truncatis. *Thunb. prod.* 88.

Obs. In hortis nostris nondum viget.

Non vidi.

Si *verè conicum* (nec obconicum), distinctissimum est ab omnibus, et præsingulare.

turbiniforme. 10. * M. (great obconic) obconicum, exactè truncatum.

Delineationem in Africa factam, sine flore, cum amico Dom. Burchell, solum vidi.

Prioribus 2-3-plo majus plusve; rectè truncatum turbiniforme.

uvæforme. 11. * M. (the Grape) subglobosum pallide virescens uvæforme; punctulis parvis parum confluentibus saturatioribus.

Viget in regio horto Kewense A.D. 1820.

Obs. Uvulam viridem (dictam Muscadine) facile simulat.

Lycoperdastrum &c. Burm. dec. tab. 10. *fig.* 2?

Introd. 1820.

Habitat C. B. S. locis uliginosis salsis. *Burm. l. c.*

2. Sphæroidea.

nuciforme. 12. * M. (nut-shaped) glaucum, læve: foliorum apicibus inæqualiter distinctis, supra planis.

M. nuciforme. Nob. in Obs. mesem. 129.

Flores non vidi. Unciale: foliis connatis fere ad apices immunibus: ruptatis, egressione novorum foliorum.

Obs. It may require some apology for founding

named Sections (for the sake of uniformity in the plural number) where we know as yet but single species, as above: and the individuals which form the species must be considered as constituting the plural; instead of the groups of species in other Sections.

In the present, and a few similar cases of anomaly below, no character is added to the sectional name, because that is presumed to fall more naturally under the species it embraces. In genera of one species it is the reverse, on account of the character being taken from the fructification.

3. Semiovata, caudice nullo, foliis albidis lævibus immunibus, semioviformibus; supra planis, subtus convexis: basi intus sæpe pustulatis.

M. (broad short-white) foliis vivis subquatuor late ovatis s. parabolicis semiteretibus expansis. *testiculare.* 13.
M. testiculare. Ait. kew. ed. 1. *v.* 1. 181.—*Corolla alba? Ait. kew. l. c.*

M. (narrow short-white) foliis vivis 6-8 oblongo-ovatis semiteretibus erectioribus. *octophyllum.* 14. *
M. testiculare β. Nob. in Syn. succ. 205.—*M. testiculare. Bot. mag.* 1573.
Obs. Corolla lutea. *Folia* minora quam in priore, erectiora, angustiora.
β. foliis longioribus erectioribus.
M. testiculare γ. Syn. succ. 204.
γ roseum. Jacq. frag. t. 12. *f.* 2. *p.* 20. 73.

4. Obtusa, foliiis vivis subquatuor semiteretibus teretibusve, obtusis læ-

vibus immunibus ; junioribus paribus quasi fissis.

obtusum. 15. * M. (cloven green) virescens : foliis inæqualiter semitereti-acinaciformibus obtusis. *Nob. in Syn. succ.* 206.

OBS. *Calyx* 6-fidus fere sessilis. Corolla magna læte rubicunda speciosa.

fissum. 16. * M. (cloven white) albidum, foliis æqualiter semiteretibus obtusissimis. *Nobis in Synops. succ. p.* 205.

digitiforme. 17. M. (finger-formed) acaule: foliis teretibus lævissimis. *Thunb. prod.* 88.

M. digitatum foliis alternis teretibus obtusis, floribus axillaribus sessilibus. *Hort. kew. ed.* 1. *v.* 2. *p.* 181 ?

OBS. Nondum vidi.

5. MAGNIPUNCTA. Acaulia : foliis integris crassissimis paucis, exacte decussatis plus minus canis glaucisve, basi semiteretibus suberectis ; supra planis, supernè grossè clavatim carinato-triquetris obtusis, punctis magnis numerosis sparsis saturatioribus ; (floribus sessilibus mediocribus luteis ?)

magnipunctum. 18. * M. (great-dotted club-leaved) foliis perfectis subquatuor magnis clavato-triquetris grossissimis glaucescentibus, crebre et viride magnipunctatis.

M. magnipunctatum. Nob. in Suppl. pl. succ. p. 87.

Variat

α *sesquiunciale;* foliorum crassissimorum angulis adultis sesquiunciam crassis: flore luteo sessili majusculo.

β *unciale;* circiter duplo minus.

γ *affine;* M. magnipunctatum? *Hort. dyck. cat. A.D.* 1820. *p.* 21.

M. (hoary club-leaved) foliis incanescentibus, basi semiteretibus attenuatis; supernè auctim gibboso-carinatis. *Nob. in Misc. nat. &c.* 25. *canum.* 19. *

A priore, cui simile, instanter dignoscitur, minore statura, canoque colore.

6. ALOIDEA.

M. (Aloë-like) acaule: foliis integris semiteretibus virescentibus albo marmorate punctatis, sursum auctis, supra subconcavis, apice carinato-triquetris. *Nob. in Suppl. pl. p.* 88. *Aloides.* 20. *

Senectæ plantæ cespitosæ, radicibus fusiformibus, foliis crassis numerosis patulis vix regulariter decussatis, floribus centralibus sessilibus luteis, mediocribus.

7. SCAPIGERA, foliis præcrassis immunibus basi semiteretibus; supernè clavatim carinato-triquetris lateribus (excepto ultimo) paucidentatis: scapis semipedalibus grandibracteatis ramulosis: floribus pomeridianis magnis luteis.

M. (Dog-chap) subacaule, foliis glaucis apicem versus bracteisque dentatis incurvantibus, pedunculis longitudine foliorum. *Nob. in Syn. succ. &c.* 217.—*Dill. elth. fig.* 231. *caninum.* 21. *

vulpinum. 22. * M. (Fox-chap) subacaule, foliis glaucis apicem versus grandidentatis integrisve; senectis horizontalibus, bracteis integris, pedunculis folio longioribus. *Nob. in Syn. succ.* 218.

Elatius quam priore, foliis paulo longioribus gracilioribus tantillum viridioribus, dentibus paucioribus, majoribus.

hybridum. 23. * M. (bastard) acaule læve albidum: foliis semiteretibus integris, supernè carinato-triquetris parumque incrassatis, mucronulo recurvo. *Nob. in Syn. succ.* 218.

Obs. *Folia* seminalia primi anni sæpe dente uno alterove instructa, adulta sæpissimè integerrima. Hybridum inter M. albidum et caninum, e seminibus prioris casualiter ortum in horto amici Dom. Howard, A.D. 1810.

Flores non vidi.

Obs. If a plant is the *known* production of two species, it is neither of them: for if it is *not* neither, it must be either, *i. e.* both; which cannot be: and therefore it is a thing as it were *per alios*, and is better so described; recording in its very name its origin.

albidum. 24. * M. (white) acaule prælæve album: foliis crassè subulatis, triquetris obtusis cum mucrone, basi semiteretibus. *Linn. sp. pl.* 669.—*Bot. mag.* 1824.—*Dill. elth. fig.* 232.—*Brad. succ.* 43.

8. Ringentia, foliis præcrassis semiteretibus, supernè sensim dilatatis; apicem versus triquetris-carinatis lateribus ciliatim dentatis, ciliis sæpe longis: floribus sessilibus magnis luteis pomeridianis.—Paria

juniora foliorum, animalium rictum representantia.

M. (Tiger-chap) virescens: acaule: foliis (amplex- *tigri-*
icaulibus) cordato-ovatis expansis, albo crebre *num.*
marmoratis altissimè ciliatis: supra planis, apice 25.
cartilagineo-carinatis. *Nob. in Syn. succ. &c.* *
216.—*Bot. reg.* 260.

M. (Cat-chap) acaule glaucescens: foliis altè ci- *felinum.*
liato-dentatis obsoletissimè punctatis; apicibus 26.
cartilagineo-carinatis. *Nob. in Syn. succ. &c.* *
216.—*Dill. elth. fig.* 220.

Obs. Ad lucem in lente folia creberrimè albo-punctata.

M. (Weasle-chap) subacaule virescens pellucenter *mustelli-*
magni-punctatum: foliis elevato triquetris; su- *num.*
pernè ciliatim brevidentatis; basi interne pus- 27.
tulato-gibbosis. *Nob. in Suppl. pl. succ.* 87.— *
Salm. tent. bot. 9.

Obs. Prioribus 3-plo minus, at affine: sed sequentem magis approximat. *Flores* (in Septembre) vespertini terminales solitarii mediocres subsessiles, s. pedunculo brevi subcompresso clavato. *Calyx* 4-fidus, laciniis (vespere) reflexis, 2 duplo minoribus interioribus macris, oblongo-attenuatis obtusis, ad margines breviter membranaceis, apicibus subcarinatis: 2 exterioribus sine membrana, supernè carina subdenticulata, petalorum fere longitudine. *Corolla* odore pungenti quasi moschatim fœniculaceo,—vel etiam subnarcissino, at minus suave: *petalis* valde numerosis setaceis; sed ita erecto-expansis, distantiusculos evadunt, nec se ipsos tangentibus. *Filamenta* longitudine varia lutea et antheræ

luteæ. *Styli* stigmatave breves, 4 ? reconditi (non satis examinavi) basi coaliti, in unum stylum.

murinum. 28. * M. (Mouse-chap) subacaule glaucum: foliis trifarie ciliato-denticulatis parvi-punctatis. *Nob. in Syn. succ.* 217.

9. Dolabriformia, subacaulia, foliis dolabriformibus; floribus luteis pomeridianis sub-vesperisve.

dolabriforme. 29. M. (hatchet-leaved) foliis exacte dolabriformibus; caule senecto fere semipedali erecto.
M. dolabriforme. Linn. sp. pl.—Bot. mag. 32.
β. Paulo minus, foliis minus gibbosis.

10. Carinantia.

carinans. 30. * M. (scymetar-leaved, dwarf) foliis erecto-incurvis, sursum carinantibus, s. graciliter acinaciformibus, elongatis glaucis magnipuncto-rugosiusculis; supra lente sulcato-concavis.
M. canum. Salm. tent. bot. 20, *nec Aliorum.*
Habitat.... G. H. ♃.
Flores ignoti.
Obs. Communicavit illust. Princeps de Salm Dyck, nomine M. cani. Est nunc acaule, foliis punctis numerosis magnis viridibus; senectis (foliis) expanso-incurvis, omnibus basi semiteretibus. Species valdè singularis et omnino anomala, nulli affinis: sed locata est cum M. dolabriformi, a Principe de Salm Dyck, in loco; at vix rectim. Fortasse affinius M. albido, potiusve M. magnipuncto; sed omnino suæ sectionis; et flores (mihi ignotos) melius forte docebunt locare.

11. ROSTRATA. Acaulia: subacauliave: foliis 4-6 suberectis glaucis subulatis semiteretibus punctatis, apice triquetris: ineptis per paria Ardeæ rostrum referentibus: floribus fere semper luteis.

M. (toothed, beaked) foliis glaucissimis subtriquetris compressis; apice dilatato-carinatis, carina sæpe denticulata. *Nobis in Syn. succ. p.* 215. *denticulatum.* 31. *

α canum.
β glaucum.
γ candidissimum.

M. (robust beaked) foliis obtusis punctatis basi intus pustulato-gibbosis, caule robusto brevi decumbente subramoso. *Nob. in Syn. succ.* 211. *robustum.* 32. *
OBS. Caulis in senectis 4-uncialis crassus.
Flores non vidi.
β simile. Viget in *Hort. dyck.*

M. (compact) acaule, foliis connatis punctatis semiteretibus, apice triquetris subreflexis acutis, floribus sessilibus, calyce subcylindraceo sexfido (corollis luteis). *Hort. kew. ed.* 1. *v.* 2. *p.* 191. *compactum.* 33.
Nondum vidi. An rectè locatum?
A Rostratis discrepat calyce 6-fido, floribusque sessilibus. Accedit forte in formâ; et petalorum colore.

M. (quadrifid spotless beaked) subacaule: foliis cano-glaucis obtusis, apicem versus punctis rarissimis; calyce quadrifido. *Nob. in Syn. succ. p.* 212. *quadrifidum.* 34. *

Dignoscitur facile foliis canescentibus fere immunibus; caudice senecto trientali robusto, decumbente.

bifidum. 35. * M. (bifid beaked) subacaule: foliis glaucis valde obtusis multipunctatis: calycibus 2-4-fidis. *Nob. in Syn. succ.* 212.

Obs. Foliis brevioribus quam in priore; magis obtusis: caule debiliore.

bibracteatum. 36. * M. (greater Heron-beaked) subacaule ramosum: foliis subulatis elongatis punctatis perglaucis: bracteis quatuor decussatis scapo brevioribus. *Nob. in Syn. succ.* 213.

Obs. M. rostrato paulo majus, caule senecto subunciali ramoso. *Folia* glauciora punctis paucioribus majoribus. Forte sequentis mera varietas major.

rostratum. 37. * M. (Heron-beaked) acaule foliis subulatis elongatis acutis glaucis præpunctatis: bracteis 2, scapo longioribus.

M. rostratum. Linn. sp. pl. 696. — *Dill. elth. fig.* 229, sine flore.—*Nob. in Syn. succ.* 214, excluso synon. Milleri.

β *tuberculatum*; acaule: foliis semicylindricis connatis, externe tuberculatis. *Mill. dic. ed.* 8. *no.* 32.

Obs. Foliis brevioribus glaucioribus, forte minus lævibus, per lentem uti affinia, minute ciliatis.

ramulosum. 38. * M. (small-beaked) foliis obtusis basi intus pustulato-gibbosis, senectis expansis, caule senecto triunciali ramoso, decumbente. *Nob. in Syn. succ.* 215.

Folia præcedentium, at obtusa, et fere triplo minora; caudice magis ramuloso.

12. MONILIFORMIA, æstate aphylla: caudicibus ramulosis 1-3-uncialibus nodoso-moniliformibus: foliis 4 singulo anno in singulo ramulo; 2 primoribus connatis ad apices, s. truncatis usque vaginas: 2 sequentibus elongatis 1-6-uncialibus, basi connatis marcescenti-deciduis: calycibus foliisve papuloso-crystallinis.

M. (pea-shaped) foliis papuloso-crystallinis, primoribus connato-pisiformibus s. sphæroideis, sequentibus semiteretibus: caudice confertim ramosissimo suberoso unciali. *Nob. in Syn. succ. &c.* 206. *pisiforme.* 39. *

M. (necklace) foliis primoribus connato-sphæroideis; sequentibus semiteretibus subulatis longissimis recurvantibus viridibus. *Nob. in Syn. succ. &c.* 207. *moniliforme.* 40. *

Flores mediocres nivei.

13. LINGUÆFORMIA (tongue-leaved), Acaulia: radicibus senectis sæpe fusiformibus; foliis exacte distichis imbricatis linguæformibus sæpe declivibus, grossis mollibus pulposis plus minus lucidis viridibus, lævibus nudis, supra planis, infra convexis, lateribus sæpe cultratis, apicibus indies oblique irregularibus uncatis, incurvisve: floribus polygynis, sæpe

sessilibus maximis lucidè luteis, latissimis petalis antemeridianis.

Obs. Every individual of this section varies in size and gloss, and even in length of peduncle, from being well or poorly fed : and it is only when out of doors, and in unshaded situations, that the true direction of the leaves can be depended on ; a character of moment in settling the varieties ; which, after all, is nearly as much a matter of taste as of reality : for a permanent variety, if raised from native seed, is altogether a kind of natural species ; and a natural species is the same thing of a higher degree : and even Sections themselves are but superior stories of the same building, completing together, as it were, in their genus, the family mansion and its many rooms.

* Crassiora, foliis præpinguibus, apice uncis majoribus.

scalpratum. 41. * M. (great graver-leaved tongue) foliis declivissimis scalpratiformibus latissimis, altero margine crassiori, basi intus pustulato-gibbosis flore sessili. *Nob. in Syn. succ.* 220.—*M. folio scalprato &c. Dill. elth. f.* 224.—*M. linguæforme. Linn. sp. pl.* 699. *et Mill. dic. ed.* 8.

β *angustius.*

Viget in *Hort. dyck.*

Olim in Anglia.

M. (thick green sweet-scented) subacaule, foliis *fra-*
(saturate viridibus) linguæformibus crassis, uno *grans.*
convexiusculo apice obtuso, altero in carinam 42.
valde producto: flore subpedunculato fragrante.
Salm. tent. bot. p. 8.
Communicavit illustr. Princeps de Salm Dyck A.D. 1820.

M. (oblique, pale, thick) foliis oblique linguæfor- *præpin-*
mibus pallide viridibus mollissimis, junioribus *gue.*
ciliato-pubescentibus, apice uncato-incurvis. 43.
Nob. in Syn. succ. 222. *
Obs. Capsula conico-depressa sessili.

** Disticha, foliis minus crassis, (primo excepto) angustioribus.

M. (broad middle tongue) subacaule: foliis lin- *medium.*
guæformibus declivis 4-uncialibus, unciam latis 44.
cultratis: pedunculis pollicaribus. *Nobis in* *
Suppl. pl. succ. 88.
Obs. Folia saturate viridia apicibus absque unco.

M. (long, cultrated) subacaule: foliis distichis lin- *cultra-*
guæformibus margine et apice cultratis; flore *tum.*
pedunculato. *Salm. tent. bot. p.* 7. 45.
Communicavit illustr. Princeps de Salm Dyck A.D. 1820.
Folia omnium affinium longissima.

M. (long, high polished) foliis longis perviridibus *lucidum.*
lucidissimè politis: pedunculis calyce longiori- 46.
bus: capsula minore depressa. *
M. lucidum. Mill. dic. ed. 8, et inde *Nob. in Suppl. pl. succ.* 89. Ficoides &c., foliis latiss. crassiss. lucidis, &c. *Brad. succ. t.* 24, *mala.*—

M. longum. Nob. in Misc. nat. 34.—*M. folio linguæformi longiore. Dill. elth. f.* 227.

adscendens. 47. * M. (long peduncled) foliis late linguæformibus adscendentibus obtusissimis viridibus: pedunculis longioribus. *Nob. in Syn. succ.* 220.—*Catal. hort. dyck. p.* 20.

Forte prioris varietas.

pustulatum. 48. * M. (blistered tongue) foliis linguæformibus adscendentibus 5-6-uncialibus, 3-11 lineas latis, basi internè grandipustulatis. *Nob. in Suppl. pl. succ. p.* 88.

β. duplo minus vel plus, pustulâ altiore.

longum. 49. * M. (long thin-leaved) foliis longissime linguæformibus lucidis minus crassis: floribus subsessilibus: capsula magna depressa.

α *flaccidum* (Volckamer's long flaccid) foliis declivibus fere omnium affinium longissimis, minus crassis et flaccidioribus; pedunculo sæpe sessili; capsulis magnis depressis numerosis.

M. longum β, flaccidum. Nob. in Syn. succ. 222. —*M. depressum. Bot.mag.* 1866, nec Aliorum, e planta parva.—Ficoides &c. folio longo triangulari lucido obtuso. *Volck. norib.* 165, cum icone.

β *declive* (lesser erect edged); foliis anguste linguæformibus macris, marginibus cœlo perpendiculariter sæpe declivibus.

Obs. Paulo minus, minoribus floribus sessilibus, foliis aëre aperto magis declivibus: capsulâ depressa.

From the Earl of Tankerville's garden at Walton.

γ *angustius* (narrow-leaved, tufting); omnium fere

affinium ramulosius, cæspitosum : foliis angustioribus pallidioribus crassiusculis brevioribus parum variantibus, subadscententibus : capsula parva depressa.

δ *purpurascens* (purple green) priori simillimum, foliis livide purpurascentibus.

Vigebat, cum priore, in regio horto Kewense, e C. B. S., A.D. 1819.

Forte propria species cum γ.

ε *uncatum* (long bright leaden-green); ramosius : foliis longissimis planis lucidissimis, crassioribus depressis, lævioribus saturatioribus, s. plumbescente-viridibus, apice sæpius grande incurvo-uncatis : capsula magna depressa.

M. præpingue. Catal. hort. dyck. A. D. 1816, *p.* 18 ? nec Aliorum : et inde, ni fallor, accepi A. D. 1819.

Obs. Forte propria species, magis uncata quam cæteris et diversa ; et inde simulat M. præpingue, at foliis longioribus, angustioribus, minus crassis, &c. — Omnium lucidissimum, excepto M. lucido : valde cespitosum.

ζ *attollens* (narrow dark ascending) ; priori simillimum : minus ramosum : foliis magis adscendentibus, minus plumbescentibus, vel nitentibus.

E regio horto Kewense, A.D. 1819.
A C. B.S.

M. (common tongue) foliis inæqualiter linguæformibus crassis viridibus subinde carinatis : capsula parum elevata, subsessili. *Nob. in Misc. nat. p.* 33, *et Syn. succ.* 221, exclusis synonymis, excepto *Hort. kew. ed.* 2. *v.* 3. *p.* 218.— *Dill. elth. f.* 226 ? *linguæforme.* 50.

α. foliis inæqualiter linguæformibus perviridibus

subinde carinatis, adscendentibus supraque concavis.

β *rufescens* (reddish-green, prostrate); prostratum: foliis linguæformibus obtusis arctissimè imbricatis, planis subdeclivibus rufescentibus, sæpe quasi subundulatis, apice varie incurvis. *Nob. in Syn. succ.* 221, *et Suppl. pl. succ.* 89.

Facies fere prioris, sed in aëre aperto rufescit, et omnium rarissime floret.

γ *subcruciatum* (small subcruciate); foliis varie linguæformibus adscendentibus cultratis planis sulcatisve irregularibus, subinde oblique subcruciatis; capsula subelevata.

Nomine "M. cruciati, ex Hollandia," communicavit amicus Dom. Jos. Hooker, A. D. 1820.

Forte omnium affinium minimum.

δ *prostratum* (pale, thick, prostrate); magnum: ramosius; foliis, aëre aperto, humi adpressis crassis planis pallide viridibus: capsula magna elevata.

ε *assurgens* (pale, thick, upright); maximum (hujus speciei): minime ramosum: foliis magnis crassis pallide viridibus assurgentibus subinde fere semierectis: capsula magna subelevata.

E regio horto Kewense, a C. B. S., A.D. 1819.

Omnium (hujus speciei) minime ramosum, s. pauoribus propaginibus.

latum. M. (broad, short, Dillenian) foliis linguæformibus
51. obtusis crassis, sæpe declivibus, subexcavatis-
* que, capsula magna conica subsessili. *Nob. in Misc. nat. p.* 32, *et Syn. succ.* 220.—*M. folio linguæformi latiore. Dill. elth. f.* 225.

Obs. This ancient species was obligingly communicated to the author in 1819, from the cele-

brated garden of Oxford, by the Regius Professor of Botany, Dr. Williams; together with cuttings of all the other *Mesembryanthema* then living in that collection: which, I conceive there is every presumptive reason to suppose, are the legitimate descendants of the far-famed Sherardian stock at Eltham; and which shine so conspicuously in the works of Dillenius. Of all the *Mesembryanthema* that celebrated botanist has so interestingly figured in his matchless *Hortus, M. serratum* alone is lost: —all the others are now alive before the writer.

β *breve* (short, broad, flat); prostratum: foliis late linguæformibus brevibus obtusissimis perviridibus humi depressis: capsula parva depressa subsessili.

M. latum β. Nob. in Misc. nat. 33.

Obs. In capsula minore valde differt, foliis magis depressis. Olim e regio horto Kewense, a C. B. S., ante 1802.

M. (small, recurving-leaved) prostratum: foliis anguste linguæformibus obtusis recurvis-depressis, apice varie incurvis: capsula depressa. *Nob. in Misc. nat.* 33, *at Syn. succ.* 221.—*M. folio linguæformi angustiore. Dill. elth. f.* 226? *depressum.* 52. *

α *pallens* (light-green); ut supra.

β *lividum* (rufous-green); foliis minoribus lividè rufescentibus, magis revoluto-depressis.

Obs. Delicatius et tenerius quam α.

Vigebat in regio horto Kewense, A. D. 1819, a C. B. S.

14. Cruciata, foliis anguste linguæformibus semicylindris, longissimis; plus minus obliquis per paria, sive oblique cruciatis. Cætera ut in priore sectione.

cruciatum. 53. * M. (soft, cruciate) foliis lineari-linguæformibus semicylindricis mollissimis cruciatis: caule senecto trientali. *Nob. in Syn. succ.* 224.

taurinum. 54. * M. (Bull's-horn) foliis bifariis oblique cruciatis semiteretibus obtusis crassissimis lutescente-viridibus incurvis: caudice senecto semipedali. *Nob. in Syn. succ.* 224.
Prioris facie, sed majus; at minus cruciatum; pallidius; foliis subdigitiformibus, et digiti fere magnitudine.

Salmii. 55. * M. (the Salmian Tongue) acaule: foliis subsemicylindrico-subulatis varieve oblique subuncato-obtusis, basi læviter latè pustulatis; apice carinatis: capsula depressa semiinclusa.
M. Salmii. Nob. in Suppl. pl. succ. 89, *et Salm. tent. bot. p.* 11.—*M. cruciatum, Catal. hort. dyck. A.D.* 1816, *p.* 17.
Variat
α *decussatum* (cruciate); ut supra: foliis cruciatis expansis, sæpe cultratis perviridibus, duriusculis potiusve carnoso-firmis: flore solitario, centrali magno luteo, (Linguæformium) antemeridiano absque ullo pedunculo.
β *semicruciatum* (semicruciate); foliis oblique distichis rectis, nec exacte decussatis, et magis linguæformibus. *Salm. tent. bot. p.* 12.

γ *angustifolium* (narrow-leaved); "la feuille est plus longue et plus étroite."

Princeps de Salm Dyck, *in littera* mecum.

Hæcce tria nobilia Linguæformia ipse Princeps benignissimè communicavit; α in A. D. 1818, β in 1820, iteratim cum γ, nuperrimè.

Florem unicum solum vidi.

M. (thick, acute Tongue) foliis decussatis sub-erectis, patulisve plus semiteretibus subulatis acutis mollibus basi sæpe pustulatis: germine exerto subpedunculato. — *surrectum.* 56. *

β. foliis brevioribus, magis patentibus.

Habeo varietates ambas e regio horto Kewense, ex seminibus Capensibus ortas, A.D. 1819.

15. Difformia, subacaulia; foliis obliquis, s. oblique cruciatis semicylindricis; vaginis superne utrinque sulcatis; apicem versus apiceve sæpe oblique difformibus; denteque uno alterove sæpe instructis. Cætera ut in sectione priori.

M. (various leaved) acaule; foliis viridibus difformibus, superioribus longioribus. *Nob. in Misc. nat.* 36. — *heterophyllum.* 57. *

Obs. Folia robusta; inferiora ut in M. cano; superiora fere ut in M. difforme, at minora.

M. (narrow Tongue) foliis lineari-linguæformibus semicylindricis longissimis. *Nob. in Obs. Mesem. p.* 176. (*A. D.* 1795)—*Misc. nat.* 34.—*Syn. succ.* 222. — *angustum.* 58. *

β *pallidum;* foliis oblique subcruciatis pallidioribus et forte minoribus, minus crassis.

M. angustum. Hort. dyck. A.D. 1818. *p.* 17.
Forte propria, vel varietas alii speciei.
Exemplum parvum nuperrime receptum ab illustr. Principe de Salm Dyck, solum vidi.

γ *heterophyllum* (long semicylindric-leaved); foliis flabelliformiter semiexpansis humi depressis fere semiteretibus prælongis grossis, apice oblique uncato-difformibus obtusis carinatisve.

M. heterophyllum. Jackson in Bot. rep. v. 8. *pl.* 540.

Obs. The above figure in *Bot. rep.* does not (as in *Syn. succ. p.* 223 I queried) belong to *M. præpingue*, but more probably to the present species as a variety; and by no means to my *M. heterophyllum.* Neither is the account in *Bot. rep. in loco*, of the providential distribution of the seeds of *Mesembryanthema* quite so new as is there presumed, having been detailed at large in 1803, in *Misc. nat. p.* 101 and 102. But Dr. Sims's paper (cited in *Bot. rep. l. c.*) on the capsules of *M. pinnatifidum*, in the *Medical Journal* for 1799 (the translation only of which, in *Annals of Botany* for Sept. 1804, I have seen), contains the *new* and interesting idea of painting the dry and reviviscent capsules ornamentally. This may lead to pleasing amusements, and I recommend for trial the larger (more than inch wide capsules) of *M. medium*, *M. pugioniforme*, &c. tastily blended with others of every size. Those of *M. purpuro-croceum*, or its var. *flavo-croceum*, are beautifully tinted of themselves, and might remain unaided. And provided the colours, applied as Dr. Sims recommends, can be fixed ones, and not in oil (which by retarding absorption would ruin the process) we may have our mantlepieces in

curiously natural and beautiful bloom, in a few minutes, and as often as we please, from the same subjects!

M. (differmed) foliis oblique cruciatis longis apicem versus, varianter oblique difformibus, denteque uno alterove obscuro munitis; caudice senecto 3-6-unciali. *Nob. in Syn. succ.* 225.—*Dill. elth. f.* 242. *difforme.* 59. *

β brevicaule; caudice breviore.

Viget in Hort. Dyck. Semel in Anglia.

M. (double-toothed) foliis semicylindricis grossis mollibus, dentibus duobus post medium magnis suboppositis carnosis; apice oblique incurveve deformitèr variabilibus. *bidentatum.* 60. *

M. bidentatum. Nob. in Suppl. pl. succ. 89.

α minus; M. semicylindricum parum simulans.

β majus; fere duplo majus; potius refert ad M. difforme; at distinctum et in singulari genere valde singulare.

Flores magni affinium, lucide lutei breviter pedunculati; petalis latis apice truncatim dentato-erosis; capsula parum depressa.

M. (small differmed) foliis angustissime linguæformibus semiteretibus, apicem versus obliquis, unoque dente obsoleto alterove munitis; caudice senecto ramoso semipedali: capsula depressa. *Nob. in Syn. succ.* 225. *semicylindricum.* 61. *

M. foliis difformibus &c. Dill. elth. f. 241, *nec* 242.—*Pluk. mant.* 325. 4.

Obs. Linguæformia bonum genus constituunt, et nomen Glottiphyllum propono.

††† Floribus rubicundis: exceptis Calamiformibus albis.

16. Gibbosa, subacaulia: foliis connatis fere ad medium, difformibus grossissimis lævibus; uno singuli paris gibbose abbreviato, altero apice oblique aucto: calyce sexfido: corollis parvulis hyemalibus roseis; stylis 6.—Genus bonum, et Gibbæum nomen propono.

gibbosum. 62. * M. (great pale gibbous) subacaule: foliis lutescente-viridibus patentibus ovatis semicylindricis, apice rarissimè carinatis. *Nob. in Syn. succ. p.* 226.

luteoviride. 63. * M. (long pale gibbous) caule debili 2-3-entali, foliis oblongis semicylindricis, superne triquetris luteo-viridibus. *Nob. in Syn. succ.* 226.

perviride. 64. * M. (dark-green gibbous) caule debili 3-4-unciali: foliis semicylindrico-triquetris subovatisve perviridibus. *Nob. in Syn. succ.* 227.
Forte prioris varietas.

pubescens. 65. * M. (hoary gibbous) foliis pubescenti-canis sericeisve lævibus. *Nob. in Syn. succ.* 227.
Obs. Forma præcedentis, subsericeo-canum, oculo armato pubescens; caulis debilis trientalis, foliis semicylindris obliquis obtusisque, apicibus ut in affinibus.

17. Calamiformia, foliis numerosis teretiusculis virescentibus punctatis,

caule senecto erecto ramoso : floribus sordidè albicantibus, octagynis.

M. (white-flowered quill) foliis subulatis glaucescentibus, basi supra planis, floribus octagynis. *Linn. sp. pl.* 690.—*Dill. elth. f.* 228. *calamiforme.* 66.

M. (reversed quill) foliis obsubulatis crassis obtusis virescentibus. *Nob. in Syn. succ.* 208. *Flores* non vidi. *obsubulatum.* 67. *

18. Teretifolia, foliis teretiusculis virescentibus punctatis ; caule senecto 2-6-unciali robusto procumbente : floribus formosis lætissimè rubicundis ; dodecagynis plusve.

M. (cylindric quill) foliis triquetro-cylindricis subglaucis punctatis triuncialibus, junioribus glaucioribus subinde triquetris ; caule senecto biunciali confertim ramoso. *Nob. in Syn. succ. &c. p.* 209. *cylindricum.* 68. *

M. (polished long quill) foliis quadriuncialibus subpunctatis virescentibus teretiusculis cylindricisve ; junioribus politis perviridibus semiteretibus : caulibus senectis semipedalibus, cortice lævigato. *Nob. in Syn. succ.* 210. *teretifolium.* 69. *

M. (short roundish quill) foliis triquetro-teretibus farctis pergrossis virescentibus punctatis biuncialibus. *Nob. in Misc. nat. p.* 27, excluso synonymo *M. punctato. App. p.* 411. *teretiusculum.* 70. *

19. Bellidiflora, foliis triquetris nullibi acutis, apice trifarie denticulatis; corollis plus minus rubicundis.

Bellidiflorum. 71. M. (Daisy-flowered) caudice senecto ramuloso unciali suffruticoso.

α *glaucescens* (small glaucous Daisy-flowered); lævigatum, foliis subglaucis.

M. Bellidiflorum. Linn. sp. pl. 690.—*Dill. elth.* 233. *fig.*

β *subulatum* (great green Daisy-flowered); foliis viridibus duplo majoribus. Mesem. subulatum: acaule, foliis subulatis triquetris, dorso supernè serratis. *Mill. dic. ed.* 8. *no.* 10.—*M. Bellidiflorum* β *simplex. Pl. gr. t.* 41.

Obs. Foliis virescentibus viridibusve, petalis albis costa rosea.

γ *viride* (pea-green Daisy-flowered); foliis læte viridibus, petalis roseis costa saturatiore.

Statura fere ut in γ, at foliis magis virentibus.

Communicavit amicus Dom. Aiton.

Burmanni. 72. * M. (Burman's Daisy-flowered) caulibus floriferis dodrantalibus, foliis glaucis sæpe recurvis; caudice simplici nullove, forteque annuo.

Mesem. folio triangulari, glauco, sæpe reflexo et aculeato, Bellidiflorum. *Burm. dec. tab.* 25.

Obs. Authoritate citatæ figuræ solum descripsi. Radix forte annua! Caules multoties longiores quam in vero M. Bellidifloro Dillenii.

20. Acuta, subacaulia, foliis semiteretibus subulatis incurvis pellucenter punctatis viridibus superne cari-

nato-triquetris; floribus alte rubicundis subdecagynis.

M. (great awl-leaved) foliis exactè semicylindri- *acutum.*
cis pellucenter ad lucem, obsolete punctatis, 73
minime rugosulis. *Nob. in Syn. succ. &c.* 207. *
—*M. subrostratum. Willd. n.* 529, synonymo
excluso.

M. (middle spotted awl-leaved) læve: foliis plus *puncta-*
semiteretibus superne triquetris, supra planis; *tum.*
punctis magnis pellucidis numerosis; apice albo 74.
minute cuspidatis. *

M. punctatum. Nob. in Obs. mesem. 411.

Obs. Doct. Williams, Regius Profess. Bot. apud Oxoniam, benevolè communicavit.

Priore triplo minus, pallidius, lævius, lucidius.

Forte sequentis varietas major.

Flores mihi ignoti fortasse docebunt.

M. (small awl-leaved) læve lucidum: foliis semi- *diminu-*
teretibus apice triquetris, supra planis; punctis *tum.*
ad lucem numerosis mediocribus: apice mu- 75.
cronulo albo.—*Nob. in Syn. succ.* 230. *

Obs. Ultimi forte varietas, at duplo minor, foliis tenuioribus, punctis longè minoribus.

β *cauliculatum;* Mesem. cauliculatum: caulibus semierectis crassis ramosis firmis lignosis 3-4-uncialibus, demum decumbenti-subradicantibus: foliis biuncialibus semicylindricis grandè punctatis, supernè costatim obsolete subtriquetris, basi angustioribus. *Nob. in Suppl. succ.* 90.

Obs. Folia fere duplo longiora quam in α.

Forte mera planta senecta.

Obs. Var. pallida in *Suppl. pl. succ.* 99, mera planta imperfecta est.

CEPHALOPHYLLA: 2. Caule caudiceve subdodrantali decumbente perenni: foliis basi connatis longis angustis, capitato-congestis: floribus stramineis polygynis: calyce 5-phyllo. Genus si bonum, nomen Cephalophyllum propono. Forte duo genera.

21. Corniculata, foliis ad geniculos per paria, subinde cornuum taurinorum instar inflexis: floribus mediocribus stramineis.

† *Diversifolia*; foliis arcuatim incurvis, radicem s. geniculos magnos versus, sæpe valde elongatis lineâ basi elevatâ, semper obtusè triquetro-cylindricis: petalis stramineis, dorso plus minus aurantio-rubro, stylis circiter 16: foliolis calycinis latis brevibus subæqualibus.

loreum. 76. M. (leathery stalked) foliis capitato-confertissimis semicylindrico-triquetris elongatis recurvis subglaucis: caulibus senectis teretiusculis gracilibus dealbatis.

M. loreum. Dill. elth. f. 255: sed vix *Linnæi spec. pl.*, quod gaudet foliis basi gibbis, et flore purpureo. *Nob. in Syn. succ.* 229.

β congestum; foliis capitato-confertissimis elongatis triquetris rugosulis viridibus longitudine variis, imis subinde longissimis. *Syn. succ. l. c.*

diversifolium. 77. * M. (short horn-leaved) robustius: foliis capitato-confertis elongatis triquetro-semicylindicis subrecurvis glaucis viridibusve, imis subinde per pa-

ria, longissimis: caulibus angulatis rubro-luteis. *Nob. in Syn. succ. p.* 230.—*Dill. elth. f.* 252. —*M. corniculatum β. Willd. sp. pl.* 2. *p.* 1041.

Variat

α majus; foliis confertis glaucescentibus robustioribus sæpe valde incurvis.

Florebat in horto Nov. 1820.

E regio horto Kewense, a Capensibus seminibus ortum, A.D. 1819.

Corolla mediocris antemeridiana sulphurea petalis extus costâ rubro aurantiâ.

β glaucius; paulo minus: glaucum: foliis confertissimis magis incurvis, sæpe fere in semicirculum.

Viget in regio horto Kewense, e C. B. S.

γ brevifolium; ultimo simillimum, at foliis confertissimis duplo brevioribus.

E regio horto Kewense, a C. B. S.

Florebat in horto in Augusto.

Flores terminales ternati; fere ut in M. loreo, petalis sulphureis costâ extus latissime rubro-aurantiâ.

δ læte-virens; foliis subconfertis, minus incurvis quam in prioribus pallide-viridibus.

ε atro-virens; foliis subconfertis incurvis ut in δ, saturate viridibus, petalis stramineis, costâ extus rubro-aurantiâ.

†† *Homophylla;* caulibus subsarmentaceis, ad nodos baseque subinde incrassatis: foliis centralibus et ad nodos congestè capitulatis longis gracilibus subincurvantibus, minute ad lentem ruguloso-pellucenter

punctatis viridibus: stylis 12-20: cæteris ut in Diversifoliis supra.

decipiens. 78. * M. (middle horn-leaved) foliis subconfertis longis sub-arcuato-adscendentibus semicylindrico-triquetris viridibus nitidis, minutim creberrime rugulosis; caulibus prostratis subdistantibus nodis.

Obs. From the garden of the Earl of Tankerville at Walton, pointed out by his Lordship's gardener, Mr. Richardson, as a new Cape species in 1820, which at first I supposed was the case. The leaves are less curved than those of the last species, of which I once thought it a variety; and both the leaves and joints are longer than in the next species, to which in fact it is most nearly allied; but still appears distinct. It is too young as yet to flower.

dubium. 79. * M. (dubious horn-leaved) foliis confertis longiusculis arcuato-erectis semicylindrico-triquetris viridibus nitidis: nodis contiguis: stylis duodecim. *Nobis in Syn. succ.* 231.—*Pet. gaz.* 77. *f.* 10?

Obs. Folia longe breviora, magisque conferta quam in sequentibus.

corniculatum. 80. M. (long horn-leaved) foliis subconfertis triquetro-semicylindricis longissimis glaucis incurvantibus: caulibus vix angulatis nodis distantibus. *Nobis in Syn. succ.* 231.—*Dilll. elth. f.* 254.

Obs. Styli 13, recurvantes.

β paulo minus.

Apud Kew.

γ *isophyllum.*

M. corniculatum α, isophyllum. Pl. gr. 108. cum icone.

Obs. γ forte propria species, internodiis longioribus, corollis minoribus luteis, extus rufescentibus: foliis brevioribus magis curvatim corniculatis. Propria species? Vix vidi.

M. (purple-jointed) foliis per paria incurvo-corniculosis semicylindrico-triquetris glaucescentibus; caulibus flexuosis procumbentibus. *procumbens.* 81.
M. dubium. Salm. catal. hort. dyck. p. 22. *
Sub hoc nomine ipse Princeps communicavit A.D. 1820.
Obs. M. tricoloro proximum, at differt ut supra; et *folia* breviora magis expansa, internodiis paulo solum longiora. *Caules* angulosi striatuli rufo-lutescentes, geniculis (basi foliorum) et summis caulibus, aëre aperto purpureis.

M. (tricoloured) foliis exacte cylindricis tripollicaribus acutis viridibus: stylis viginti. *Nob. in Syn. succ.* 233. *tricolorum.* 82.
Obs. Styli breves circiter 20, expansi. Petala straminea, basi sanguineo-purpurea. *Antheræ* fuscæ.—Hoc est (secundum *Hort. dyck.*) M. stramineum *Willd. enum. p.* 533.—sed ejus M. tricolor est M. pyropæum, *Nob. in Suppl. pl.* 99. *

22. Capitata. Palmarum habitus. *Caudex* suberectus; senectus 2 uncias ad 3 pedes altus, rarissimè ramulosus (floriferis ramis mox morientibus exceptis). *Folia* densissimè alterneque imbricato-carnosa terminalia triquetra semiteretiave. *Rami floriferi* axillares subverticillati; decumbentes ex onere bracte-

arum densè alternarum omnino folii formarum et pedunculorum nudorum 3-4-entalium terminalium. *Calyx* 5-fidus, floribus polygynis maximis stramineis, petalis angustissimis, deorsum plus minus pube ciliatis.

pugioniforme. 83. M. (great dagger-leaved) foliis glaucis subpedalibus triquetris, angulis dilatantibus late sulcatis; caudice suffruticoso simplice.

M. pugioniforme. Linn. sp. pl. 699.—*Dill. elth. f.* 269.

β *carneum. Breyn. cent. pl. p.* 164, *flore carneo.*

γ *purpureum. Breyn. cent. pl. p.* 164, *flore purpureo.*

Habitat C. B. S. — Duplo majus quam sequentibus.

δ *bienne* (biennial dagger-leaved) foliis subglaucis dodrantalibus triquetris; caudice subbienni simplice debiliore.

M. pugioniforme. Nob. in Syn. succ. &c. 228.

Obs. Priore minus, debilius.

capitatum. 84. * M. (lesser dagger-leaved) foliis subglaucis 6-7-uncialibus triquetris; caudice senecto suffruticoso simplice.

M. capitatum. Nob. in Syn. succ. &c. 228.—*Bot. reg.* 494.

M. pugioniforme (short leaved). *Nob. obs. mesem.* 390.

Habitat in Insula Van Diemen, secundum Whitley, Brames et Milne, qui communicaverunt. Statura fere prioris, at fere duplo minus.

β *ramigerum* (branching dagger-leaved); foliis numerosissimis tenuibus subglaucis semipedalibus

triquetris; caudice senecto tripedali fruticoso ramulis paucis sparsis erectis veris, capitulis foliorum verum finientibus.

Vigebat in Horto Chelseiano A.D. 1817 &c. et semper ramulos veros gerit. *Flores* ut in priore.

M. (dwarf dagger-leaved) foliis virescentibus 3-4-uncialibus triquetris: caudice senecto biunciale simplice erecto.—*Nob. in Suppl. pl.* 91. *brevicaule.* 85. *

Chrysanth. aizoid. &c. minus flore flavo. Breyn. cent. 165.

Obs. A semine facile crescit, et non variat. Prioribus 2-6-plo minus, foliis toto viridibus usque ad basin. Priora omnia semper habent folia basi plus minus læte purpurascentia.

Habitat C. B. S. copiosè secundum Dom. Burchell, at non in eodem loco cum prioribus. Genuina species, a semine constans.

Obs. It appears on a recent re-examination and cultivation, that we have five or six species or sub-species of dagger-leaved Mesembryanthema greatly resembling each other; but which keep distinct from seeds in our gardens, and which cannot indeed be increased in any other manner, except in the sub-species ramiger, which may perhaps be propagated from its true branches; for I have once known the head of pugioniforme grow, cut off *beneath* the leaves; but the plant itself, although a fine one, and carefully treated, died in consequence of the decapitation.

M. (glittering dagger-leaved) foliis pugioniformibus longis coruscantibus: caudice fruticoso perenni.—*Nob. in Suppl. pl.* 90. *coruscans.* 86. *

M. (tuberous long-leaved) foliis glauciusculis subspithameis obtuse triquetris canaliculatis vel *elongatum.* 87. *

semiteretibus; caudice debiliter flexuoso 3-4-unciali; radice magna tuberosa carnosa.

α *grandiflorum;* corolla 5-unciali odore hircino, petalis subcapillaceis pube longà flexuosâ ciliatis.

β *minus;* corolla 4-unciali, odore subhircino, petalis exterioribus deorsum pilis rectis brevibus paucissimis nudo oculo vix manifeste ciliatis.

M. elongatum β. *Bot. reg.* 493.

γ *fusiforme;* radice fusiformi.

M. fusiforme. Nob. in Misc. nat. 41.—*Breyn. cent.* 162. *t.* 80.

REPTANTIA: 3. Caulibus senectis suffrutescentibus plus minus decumbenti-prostratis sive reptantibus, angulosis: calyce 5-phyllo; floribus (uno excepto) rubicundis polygynis; foliis basi connatis acutè triquetris.

23. Sarmentosa (Sarmentose *Salm. tent. bot.*) caulibus decumbenti-prostratove-sarmentosis, ad nodos sæpius radicantibus: floribus e ramis lateralibus ternatis parvis bibracteatis; petalis roseis lineâ dorsali rubrâ: foliis triquetris, punctatis minutissime serrulatis omni margine.

gemini-florum. 88. * M. (small, pale, uncinate) ramis elongatis gracilibus, effuso-valde reptantibus: foliis subæquilateri-triquetris viridibus, apice extus aduncülis: floribus ternatis geminatisve.

M. geminatum. Jacq. frag. 50, *nec Nob. in Misc. nat.* 92.—*M. geminatum. Salm. tent. bot.* 28, *nec* 31.

Habitat C. B. S.
Benigne communicavit illustr. Princeps de Salm Dyck 1819, cum florum delineatione et ipsis floribus, at propter iter morientibus.

M. (short-jointed subuncinate) foliis æqualiteri-triquetris glaucescentibus punctulatissimis apice rectis, internodiis longioribus, marginibus minime serrulatis: caulibus firmis procumbentibus. *simile.* 89. *
Habitat C. B. S.
Vigebat in regio horto Kewense A. D. 1819.
Priori simillimum, at duplo majus, sed ramis longe brevioribus.
Flores non vidi.
A sequente differt brevioribus et crassioribus internodiis.
E regio horto Kewense, a Capensibus seminibus ortum, A.D. 1819.

M. (slender, long-jointed) foliis connatis compresso-triquetris perviridibus tuberculato-punctatis, internodiis sæpe brevioribus; margine carinaque tenuissime denticulatis: ramis gracillimis effusis reptantibus. *laxum.* 90.
M. laxum. Willd. enum. p. 536.
Habitat C. B. S.
Communicavit illustris Princeps de Salm Dyck.

M. (great weak-stemmed Sarmentose) sarmentis sesquipedalibus gracilibus laxulis radicantibus: foliis confertis compresso-triquetris læte-viridibus, marginibus minime exasperatis. *Nob. in Syn. succ.* 238. *sarmentosum.* 91. *
Obs. Caules foliaque duplo crassiores quam in priore.

rigidicaule. 92. * M. (large-leaved, stiff-stemmed Sarmentose) foliis longis æquilateri-triquetris rectis, margine asperiusculo; caule firmo procumbente (non pendulo).

Viget in regio horto Kewensé, a seminibus Capensibus ortum, A. D. 1819.

Schollii. 93. * M. (large, rough, recurved) foliis compresso-triquetris magnis recurvis serrulato-asperrimis; senectis caulibus firmis decumbenti-sarmentiformibus.

M. recurvum. Nob. in Suppl. pl 90.—*M. Schollii.* Sarmentoso-caulescens foliis connatis, triquetris, patenti-recurvatis, punctatis, angulis lateralibus et carina superne serrulatis. Floribus ternatis, pallide rubicundis, bibracteatis. *Salm. tent. bot. p.* 10. *A. D.* 1820.—*M. aduncum. Jacq. frag. t.* 51. *f.* 2. Nec Aliorum.

Obs. The Prince de Salm Dyck proposing to name this conspicuous species after its excellent discoverer Mr. Scholl (who sent so many Cape plants to Europe), I have readily relinquished my prior name of *recurvum;* and cheerfully joined in thus meeting the wishes of those to whom the whole business of succulent botany is so much indebted.

24. Rubricaulia (*Salm. tent. bot.*). Ramis senectis decumbenti-humifusis, sarmentiformibus; foliis subacinaciformiter triquetris, angulis serrulato-asperis: floribus sæpe solitariis bibracteatis mediocribus roseis.

filamentosum. 94. M. (humble, crowded, green) foliis læte-viridibus confertis crassis compresso-triquetris subacina-

ciformibus punctatis, marginibus serrulato-asperis internodio longioribus: caulibus decumbentibus brevibus contiguis. *Nob. in Syn. succ.* 238. —*Dill. elth. f.* 273.

M. (crowded rosy-stalked) foliis compresso-triquetris subacinaciformibus subglaucis, margine minime serrulatis vix cartilagineis, internodio sæpius longioribus: ramulis erecto-decumbentibus contiguis. *Nob. in Syn. succ.* 239. *serrulatum.* 95. *

Obs. Rami asperiusculi, juniores purpurascentes.

α glaucum; foliis glaucioribus, styli subocto. Longè elatius et minus decumbens quam M. filamentosum, et glaucius.

β viridius; foliis viridioribus, ramis junioribus minus purpurascentibus.

Flores non vidi.

M. (slender, deep red-stalked) gracilius: foliis subcompresso-triquetris virescentibus rugosiusculis marginibus cartilagineo-serrulatis internodio sæpius brevioribus: ramulis oppositis ruberrimis. *Nob. in Syn. succ.* 239. *rubricaule.* 96. *

Variat

α gracilius (slender, deep red-stalked); ramulis ruberrimis, foliis distantioribus, glaucioribus, stylis quinque.

β densius (crowded red-stalked); ramis foliisque paulo densioribus, ramulis junioribus minus intense rubentibus, floribus ignotis.

γ subvirens (tall, green, red-stalked); foliis subæqualiteri-triquetris viridibus virescentibusve, marginibus exasperatim serrulatis: caulibus decumbenti-prostratis longis, ramis distantioribus: floribus ignotis.

E regio horto Kewense, a Capensibus seminibus ortum, A. D. circa 1818.

Obs. Hæc varietas fere est intermedia inter M. serrulatum et M. rubricaule; et ultimi potius varietas.

25. Acinaciformia: caulibus procumbentibus prælongis demum radicantibus: foliis magnis e triquetro-rectim acinaciformibus: floribus solitariis terminalibus maximis.

acinaciforme. 97. * M. (great scymetar-leaved) foliis acinaciformibus, marginibus subcrispatim undulato-scabris.
M. acinaciforme. Linn. sp. pl. 695.—*Dill. elth. f.* 270-271.
α breve; ut supra, ramis brevioribus.
Accepi, e horto Oxoniense, a Regio Professore Williams.
β longum; ramis longioribus, foliis parum minoribus: floribus rarissimis.
Priore plus duplo longius, foliis parum forte minoribus; rarius, vel nunquam in hortis floret.

lævigatum. 98. * M. (great smooth scymetar) foliis acinaciformibus lævigatis glaucis marginibus cartilagineis integris. *Nob. in Syn. succ. p.* 233.
Obs. Margines integri non colorati.
M. glaucescenti infra simillimum, at 2-3-plo majus.

rubrocinctum. 99. * M. (red-edged scymetar) foliis acinaciformibus, marginibus carinaque asperis rubris. *Nob. in Syn. succ.* 234.
Obs. Ab ultimo discrepat, marginibus rubris asperis—a penultimo, non undulatis.

Variat
α *crassum;* foliis glaucioribus crassioribus, rufo-cinctis.
β *compressum;* foliis magis compressis, minus rufis. A Domino Law.
γ *tenerum;* ramis paulo longioribus, foliis compressis ut in β, at magis rufo-cinctis, viridioribus.
M. lævigato forte nimis affine, at margines, certe asperiores, et aëre aperto rubicundi.
Varietas γ frigoris magis impatiens est quam priores.

M. (red-pitted scymetar) foliis compresso-triquetris acinaciformibus æquilateralibusque, margine omni scabriusculo. *Nob. in Syn. succ.* 235. *subulatum.* 100. *
Obs. A præcedentibus dignoscitur foliis minus carinatis (et e frigore marcescente-rufo-punctatis) foliisque junioribus æquilateralibus—et a sequentibus duobus in foliis adultis compressis, acinaciformibus, sine pustula.

M. (blistered rectangular) foliis adultis æquilateri-triquetris viridibus subincurvis triuncialibus basi intus pustulatis; carina serrulata;—lateribus asperiusculis. *edule.* 101.
M. edule Linn. sp. pl. 695.—*Dill. elth. fig.* 272.
Obs. A section of the prismatic leaf forms a right-angled triangle.

M. (lesser, Eatable) foliis subbiuncialibus acute triquetris, senectis compressis carina supernè ustulatim serrulata. *Nob. in Syn. succ.* 235.—*M. acinaciforme. Pl. gr.* 89, *nec Aliorum.* *dimidiatum.* 102. *
Folia duplo breviora quam in priore, at fere eadem latitudine.
In Anglia planta deleta.

glaucescens. 103. * M. (soft glaucous scymetar) foliis junioribus subincurvis æquilateri-triquetris mollibus glaucis, margine subcartilagineo-albo læviusculo; caulibus decumbenti-prostratis robustis, summis sulco exaratis: floribus solitariis sessilibus; stylis septem. *Nob. in Syn. succ.* 236.

Obs. Calyx 5-fidus subsessilis. Folia adulta compresso-triquetra acinaciformia.

Rossi. 104. * M. (small red-pitted scymetar) foliis acinaciformibus s. compresso-triquetris glaucescentibus, margine subcartilagineo roseo læviusculo; caulibus decumbenti-prostratis.

A seminibus e Van Diemen's Land, ortum, A. D. 1820, a Dom. Gulielm. Ross, apud Stoke Newington, qui mihi communicavit.

Obs. Priori simillimum, sed longè gracilius. *Caules* 3-pedales et ultra, demum prostrati valde ramosi; *foliis* omnibus magis acinaciformibus s. compressis acutioribus durioribus, et aëre aperto magis frigoris impatientibus, indeque altius rufo-marginatis, et singulariter marcescenti rufo-maculatis; exactè ut in M. inæquale, infra. Variat foliis glaucioribus et gracilioribus, ramulis confertioribus magisque acinaciformibus, marginibus rubris.

Flores non vidi.

virescens. 105. * M. (greenish small scymetar) foliis snbæquilateri-triquetris subvirescentibus; caulibus decumbenti-prostratis; pedunculis terminalibus solitariis alato-ancipitibus; stylis octo. *Nob. in Syn. succ.* 236.

æquilaterale. 106. * M. (equal-angled) foliis subæquilateri-triquetris virescentibus, marginibus lævibus cartilagineis; caulibus debilibus prostratis. *Nob. in Syn. succ. p.* 237.

Obs. *Flores* rarissimi e ramis lateralibus. *Styli* 6.
β. paulo majus et brevius, sæpius florens. *Syn. succ. l. c.*

M. (smooth-edged upright green) foliis compresso-triquetris subacinaciformibus lævibus punctatis viridibus, basi interne subpustulatis, carina apice asperiusculo. *virens.* 107. *

Viget in regio horto Kewense, a seminibus Capensibus ortum, A. D. 1821. G. H. ♄.

Obs. Ab omnibus valde distinctum, et forte magis affine M. glaucescenti; sed minus, erectius, lævius et viridius. *Folia* in seminalibus plantis 6-12 lineas longa valde acinaciformia, et simulantia M. maximi folia, sed altè viridia punctis longe majoribus. *Caules* in junioribus, quæ solum vidi, semipedales erecti, ramulis vix patulis; in senectis forte decumbentibus, ramulis patentibus.

26. Humillima, ramis ramulisque omnino prostratis minoribus, facillime semper ad nodos reptantibus: foliis parvulis tereti-triquetris incurvis subinde subacinaciformibus, clavatisve: sæpius confertis.

M. (small rough glaucous creeping) foliis glomeratis triquetris acutis glaucis, punctis magnis pellucidis scabris: caulibus filiformibus debilissimis. *reptans.* 108.

M. reptans. Hort. kew. ed. 1. *v.* 2. *p.* 185.

Flores imperfectos solitarios solum vidi, autumnales.

australe. 109. M. (small smooth glaucous creeping) foliis glaucescentibus punctato triquetris incurvantibus lævibus.
M. australe. Hort. kew. ed. 1. *v.* 2. *p.* 187.
M. demissum. Willd. enum. suppl. 36.

crassifolium. 110. M. (small green creeping) foliis triquetris impunctatis lævibus perviridibus basi semicylindricis.
M. crassifolium. Linn. sp. pl. 693. — *Dill. elth. f.* 257.
β. paululum majus.

clavellatum. 111. * M. (club-leaved creeping) foliis confertis expansis obsolete triquetris farctis clavatis obtusissimis viridibus cum mucronulo. *Nob. in Misc. nat. p.* 79.—*Syn. succ.* 242.
β aggregatum; ramis ramulisque longe densioribus seu confertis. *Syn. succ. l. c.*
γ minus; foliis ramulisque brevioribus s. minoribus, congestis. *Syn. succ. l. c.*

humile. 112. * M. (dwarf triangular) foliis triquetris subulatis, calyce quadrifido, radice perenni.—*Nob. in Misc. nat. p.* 80.
α rubrum; flore rubro.
Dwarf triangular red Fig-marygold. *Pet. gaz.* 88. 9.
β luteum; floribus luteis.
Dwarf triangular yellow Fig-marygold. *Pet. gaz.* 88. 8.
Non vidi.
Folia opposita, vix rectim ternata ut in figuris citatis, quæ ramulos potius quam folia forte spectant.
E capite Bonæ Spei. Vix hujus sectionis.

PERFOLIATA: 4. Fruticuli foliis valdè connato-vaginantibus supernè sæpius triquetris, apicibus plerumque aduncis: floribus albis, rarius roseis; calyce 5-phyllo.

27. Forficata.

M. (denticulate scissar-leaved) foliis triquetro-compressis viridibus, apice spinulosis, caule ancipiti decumbente. *forficatum.* 113.
M. forficatum. Linn. sp. pl. 695.
Obs. *Caules* debiles suffrutescentes, ramuli semipedales.
Flores majusculi rubicundi.

28. Geminata, ramis geminatis, foliorum marginibus cartilagineo-albicantibus.

M. (white twin-shooted) foliis erectis albidis lævibus triquetris crassis, ultra medium connato-vaginantibus, margine cartilagineo; caule ereto trientali geminatim ramoso. *Nob. in Syn. succ.* 280. *geminatum.* 114. *
G. H. ♄.

M. (white-edged) foliis triquetris subacinaciformibus marginibus dealbatis, carina subdilatante. *Nob. in Syn. succ. &c.* 294. *marginatum.* 115. *

29. Rostellata.

M. (little prostrate beak) foliis rostellatim connatis semiteretibus subulatis recurvis punctatis viridibus: caulibus ramosis prostratis nodulosis. *Rostellum.* 116. *

Accepi e regio horto Kewense, (e C. B. S.) Jun. 1820.

Suffrutex palmaris et ultra, omnino anomalus, ramis subconfertis internodiis supernè tumidulis e vaginis crassis foliorum, et e senectute. *Flores* parvi solitarii in ramulorum furcationibus, pedunculis subuncialibus clavatis basi bibracteatis. *Calycis* laciniæ 5 subæquales longæ. *Corolla* antemeridiana albicans supernè alba rosea. *Styli* 5 ramentacei patuli. *Germen* 5-angulare.

30. Uncinata, suffrutices pedales ramosi: ramis junioribus uniformibus, senectis induratis carne evanescente; foliis triquetris punctatis connato-vaginantibus, internodiis toto carnosis (sine linea exarata), apice sæpe infernè plus minus denticulatim uncinatis: floribus axillaribus solitariis dilute purpurascentibus pallidis.

perfoliatum. 117. * M. (great hooked) foliis albidis crassis duris punctatis, sæpe apice inferne subtriacanthis: ramis paucis.

α triacanthum; foliis infernè sæpe triacanthis.
M. perfoliatum. Mill. dic. ed. 8. *no.* 19.—*Nob. in Misc. nat. &c.* 92.—*M. uncinatum β. Linn. sp. pl.* 692.—*Dill. elth. f.* 240.—*Brad. succ.* 46.

β monacanthum; foliis integris vel inferne apicem versus monacanthis. *Brad. succ. dec.* 3. *fig.* 26, *dextra.*

Forte idem cum *α.*

M. (toothless hooked) foliis triquetris subedentulis crassis contiguis brevibus. *edentulum.* 118. *
Mesem. foliis triquetris flore parvo rubente. *Burm. dec. t.* 26. *f.* 3.
Obs. The figure cited can hardly be intended to represent the preceding article. It is said to be used in Africa for tanning; for which indeed nearly all Mesembryanthema (and more especially the wiry wooded *PERFOLIATA*) will be found serviceable. The tanning principle resides chiefly in the subpellucid glandular dots of the leaves.

M. (small hooked) foliis albicantibus crassis punctatis apice recurvis, subtus sæpius monacanthis: ramis numerosis. *uncinellum.* 119. *
M. perfoliatum, fol. minorib. &c. Dill. elth. f. 239.—*M. uncinatum, minus. Cat. hort. dyck. A. D.* 1816 *et* 1818, *sed uncinatum, majus, A. D.* 1820.
Obs. Priore ramosius, longe gracilius, 4-plo minus.
Communicavit illustr. Princeps de Salm Dyck, A.D. 1819.

M. (greenish hooked) foliis virescentibus apice subtus diacanthis. *Nob.—Willd. et Decand. in Pl. grass.* synonymis cæteris exclusis. *uncinatum.* 120.
β *majus*; paululum majus, magisque punctatum. —*Brad. dec.* 3. *f.* 27, *sinistra.*

M. (slender hooked) ramis simplicibus gracilibus strictis duris, foliis triquetris punctatis albidis, dorso superne 1-4-dentatis. *semidentatum.* 121. *
M. semidentatum. Nob. in Suppl. pl. succ. 95.

OBS. M. perfoliato longè gracilius, magisque virgatum.
Flores non vidi.

viride. 122. * M. (deep-green) foliis integerrimis perviridibus lævibus crassis apicibus uncinato-recurvis. *Nob. in Syn. succ.* 283.

31. VAGINATA, fruticuli 1-2-pedales dumosi, asperiusculi, duriores; foliis minus succulentis, marginibus carinaque sæpe exasperato-ciliatis, omnino uniformibus, vaginis utrinque lineolâ longitudinaliter sulcatis: floribus paniculato-dichotomis terminalibus minutis albis antemeridianis.

curtum. 123. * M. (smooth short-sheathed) erectum; foliis sæpe approximatis, incurvo-recurvulis lævibus viridibus, angulis supernè asperiusculis; vaginis sæpe abbreviatis. *Nob. in Syn. succ.* 334.
α. foliis læte viridibus crassioribus lævioribus.
OBS. Mesem. viride simulat, at duplo minus.
β *majus;* foliis magis glaucescente tinctura, angulis asperioribus: caulibus fortè elatioribus.
γ *politum;* prioribus varietatibus minus: lævius: foliis erectioribus brevioribus gracilioribus læte viridibus, minus incurvo-recurvulis, angulis asperioribus quam in α.
M. vaginatum β, politum: Nob. in Syn. succ. 284.
δ *minus;* ultimæ var. simillinum, at in omnibus duplo minus.

M. (rough sheathing) erectum: asperiusculum: foliis subuncialibus patentibus strictis, apice recurvulis, vaginisque virescentibus glabris, angulis supernè asperis. *Nob. in Syn. succ.* 284. *vaginatum.* 124. *

Obs. Ultimo minus, ramis magis patulis. Folia breviora glauciora magisque patula asperiora et strictiora, s. minus flexa.

α *asperum;* foliis ramulisque tactu asperioribus.

β *parviflorum;* foliis longioribus viridioribus lævioribus; floribus minoribus.

Forte cum α, varietas mera prioris.

Difficillimè determinare.

M. (small-flowered upright) foliis semuncialibus glabris suberectis, carina minime serrulata; caule tripedali ramisque erectis. *Nob. in Syn. succ.* 284. *parviflorum.* 125. *

Obs. Flores trilineares albi minimi.

M. (spreading-leaved, rigid) foliis subtrilinearibus horizontalibus vaginisque glabris, carina apice scabra; ramis rigidissimis subpatentibus. *Nob. in Syn. succ.* 283. *rigidum.* 126. *

Folia minuta; adulta in senectis sæpe deltoidea.

β *majus.*

M. (small rough decumbent) foliis trilinearibus ultrave subpatentibus tenuibus vaginisque ad margines scabris: ramis filiformibus decumbentibus. *Nob. in Syn. succ.* 283. *tenellum.* 127. *

Omnium Vaginatorum tenuius, ramis sæpius decumbentibus.

32. Lineata, characteribus ultimæ Sectionis, at foliis gradatim deorsum minus vaginantibus, (vaginis

lineâ longâ impressis) triplo longioribus, lævibus glaucis remotis, apicibus aduncis: caulibus senectis erectis firmis tripedalibus ultrave.

imbricatum. 128. * M. (dense erect-branched) foliis subcompresso-triquetris glaucescentibus subuncialibus, ramisque erectis numerosis; calycibus turbinatis. *Nob. in Syn. succ.* 285.—*Ait. kew. ed.* 2. *v.* 3. *p.* 348.

α minus; (small) foliis 6-9-linearibus obtusis glaucescentibus.

β medium; (the blunt, crowded) foliis glaucescentibus obtusis uncialibus, calycibus turbinatis.

γ viride; (upright dull green) foliis acutioribus viridibus sesquiuncialibus, ramisque erectioribus.

M. imbricatum β majus. Synops. succ. l. c.

Obs. Flores non vidi.

E regio horto Kewense, a C. B. S., cum *α* et *β*.

multiflorum. 129. * M. (glaucous-leaved) foliis subcompresso-triquetris glaucis, ramulisque patulis.

α majus; (great white) foliis sæpe bipollicaribus præglaucis, calycibus cylindricis basi attenuatis. *Nob. in Syn. suppl.* 285.

β minus (lesser white); foliis sescuncialibus glaucis, calycibus turbinatis basi valde attenuatis.

γ rubrum (red-flowered); foliis obsolete triquetris 1-2-uncialibus virescentibus, floribus (in siccis nativis) rubicundis, supra ramos pyramidatim cymosis. *Nob. in Suppl. pl. succ. p.* 95.

Plantam vivam, et flores siccatos, cum Dom. Burchell solum vidi.

δ patens (single-flowered); M. patens, foliis teretiusculis connatis punctatis, floribus terminalibus solitariis, calycibus laciniis subæqualibus,

caule erecto patente. *Willd. enum. suppl. p.* 37.

Frutex 2-pedalis et altior: folia viridi-subglaucescentia 12-15 lineas longa. *Willd. l. c.*

Forte eadem cum var. *α.* Vix.

Nuper communicavit illustris Princeps de Salm Dyck.

ε *nitens* (spreading bright green); lævigatum: foliis subcompresso-triquetris viridibus acutis subnitentibus, ramisque patulis.

Obs. In M. imbricato et multifloro folia non ullo modo nitentia; in hoc plane ad lucem nitent, et quasi lævigata, magisque cum ramis patentiora, et absolute viridia.

Flores non vidi.

Forte propria species.

33. Tumidula, foliorum vaginis apice solum carnoso-tumidulis, exaratâ lineolâ: cæteris ut in ultima Sectione.

M. (white-umbelled) foliis remotis teretiusculis subglaucescentibus scabrido-punctatis gracilibus 2-uncialibus, apicibus recurvis: vaginis apice tumidis, floribus albis. *Linn. sp. pl.* 689.—*Dill. elth. f.* 266. *umbellatum.* 130.

β *apetalum.*

M. anomalum. Willd. en. 531, *ejus Sup.* 36.

M. (slender red-flowered) foliis remotis virescentibus lævibus subsescuncialibus, apicibus subrecurvis; vaginis apice tumidulis, ramis patentibus; corollis rubicundis. *Nob. in Syn. succ.* 286. *tumidulum.* 131. *

β *minus*; foliis paulo minoribus.
E regio horto Kewense A.D. 1819.

foliosum. 132. * M. (many-leaved red-flowered) foliis subglaucis lævibus confertis obtusis uncialibus, mucronulo subrecurvo, vaginis apice incrassatis; floribus rubicundis. *Nob. in Syn. succ.* 287.

34. Lineolata.

lineolatum. 133. * M. (tumid sheath) foliis connatis incurvo-recurvulis obtusis, carina apice asperiuscula; basi lineola vaginali impressa.

Habitat C.B.S. G.H. ♄.

Obs. Prioribus vix, neque ulli vere, affine; at gaudet foliorum vaginis apice tumescentibus, lineolâ exaratâ:—*Fruticulus* primi anni vix semipedalis ramosus depressus. *Ramuli* patuli subconferti: juniores compressi læves. *Folia* parva vix uncialia numerosa conferta subglauca, ad lucem punctulata, atque ad lentem punctis confluentibus, subæquilateri-triquetra, submucronulata, pallide marginulata; internodiorum sub-longitudine; vaginis supernè solum minime tumidulis, lineolâ brevi impressâ.

Cum β et γ, e regio horto Kewense A.D. 1819, a C.B.S.

Accepi etiam ab amico Parmentier Equite.

Nondum floret.

β *minus*; foliis subæquilateri-triquetris confertis incurvo-recurvulis subacinaciformibus submucronulatis, margine omni supernè asperiusculo.

M. læve; foliis trigonis lævibus, caule decumbente articulato. *Thunb. Prod.* 90?

Obs. Var. α simillimum, at duplo minus, ramulis

subdecumbentibus, foliis glaucioribus longissimè confertioribus, semilineam longis, et internodiorum semper longioribus.

γ *nitens;* duplo minus quam α, foliis nitentibus viridioridus.

Nondum floret.

A sectione FALCATIS, insertione foliorum solum discrepat. Ad MICROPHYLLA quoque spectat; sed per vaginas apice tumescentes, lineolamque exaratam satis recedit.

DELTOIDEA: 5. Suffrutices: foliis plus minus deltoidibus s. subacinaciformibus; floribus rubicundis.

35. MEGACEPHALA, foliis distinctis deltoideo-acinaciformibus, germinibus cum calyce 5-phyllo valde incrassatis: petalis parvis tenuissimis inclaudentibus. Genus proprium?

M. (serrate) foliis subulatis triquetris punctatis angulo carinali retrorsum serratis. *Linn. sp. pl.* 696.—*Dill. elth. f.* 238. *serratum.* 134.

OBS. Planta rariss. potiusve oblita; a me amicisve nondum visa.

M. (ragged-keeled) foliis glaucis compresso-triquetris gladiiformibus; carina cartilagineo-lacerata, petalis calyce maximo longioribus. *Nob. in Syn. succ.* 293.—*M. gladiatum. Jacq.*, secundum *Tent. bot. p.* 30, *a Principe de Salm Dyck.* *lacerum.* 135. *

OBS. *Folia* ad lentem parce at obsolete punctata.

heteropetalum. 136. * M. (various petalled) foliis confertis impunctatis glaucis breviter falcato-gladiiformibus, angulis cartilagineis, carina lacera; petalis calyce vasto brevioribus. *Nob. in Syn. succ. p.* 294.

α. corollis exiguis miseris albis.

β. corollis exiguis miseris pallide roseis.

glaucinum. 137. * M. (glaucine) foliis confertissimis compresso-triquetris brevissime acinaciformibus glaucescentibus integris subcartilagineo-marginatis subpunctatis. *Nob. in Suppl. succ.* 97.

Sequenti nimis affine.

Variat

α *angustum;* foliis gracilioribus, angulis ad lucem subcartilagineo-marginatis.

M. mutabili simillimum; sed differt, glauco s. farinoso colore, et præcipue in foliis maturis non æquilateri- sed compresso-triquetris, et longioribus angustioribus, necnon minus ad lucem cartilagineo-marginatis: corollis innuptis dilutissime roseis, albis antheris.

β *crassum;* foliis crassioribus glaucioribus.

Obs. *Flores* magis pedunculati quam in M. mutabili. *Pedunculi* triangulares. *Petala* semper patentia at magis ad solem, pluriserialia inæqualissima angustissima, filamentiformia semper rosea, non primo alba, dein rosea, ut in M. mutabili. *Fibrillæ* (s. petala interiora) numerosissimæ petalis veris multoties breviores, subulato-capillares recurvæ luteæ. *Stamina* s. filamenta vera antherifera summo calyci inserta brevissima, et cum antheris albida; intima innupta lutescentia. *Antheræ* oblongæ. *Pollen* non vidi. *Calyx* prægrossus 5-fidus subæqualis, et *Styli* breves grossi fere ut in M. mutabile.

Ab Oxonia communicavit Professor Regius Williams.

M. (changeable) foliis distinctis confertissimis subæqualiteri-triquetris brevissimè acinaciformibus viridibus punctatis cartilagineo-marginatis. *Nob. in Syn. succ.* 294.—*M. filamentosum. Pl. gr.* 60. *mutabile.* 138. *

Calyx, germen et flos præcedentis, at petala primo albicantia s. luteo-alba, nuptata denique rosea luteis antheris; odore Cratægi oxyacanthæ.

M. (open-flowered) foliis subdeltoidibus lævibus perviridibus, carina gibbosa integra; petalis inclaudentibus, interioribus imbricatis abbreviatissimis. *Nob. in Syn. succ.* 295. *inclaudens.* 139. *

Eximia species, hodie ubique florens.

86. Muricata, foliis triquetrisque trifariam denticulatis, deltoidibus, impunctatis.

M. (smooth-keeled Delta) foliis confertissimis glaucis longè triquetro-deltoidibus, lateribus minime dentatis, carina integra. *caulescens.* 140. *

M. caulescens. Mill. dic. ed. 8. *no.* 12.—*Dill. elth. f.* 243-4.

M. (great Delta) foliis confertis glaucissimis triquetro-deltoidibus trifariè dentatis; carina bractearum foliolisque calycinis integris.—*Nob. in Misc. nat. &c.* 296.—*Dill. elth. f.* 245-7. *deltoide.* 141.

M. (small Delta) foliis confertis deltoidibus bracteis foliolisque calycinis triquetris subglaucis trifarie denticulatis. *Nob. in Syn. succ. &c.* 297.—*Dill. elth. f.* 245 et 247. *muricatum.* 142. *

β *minus;* foliis paulo minoribus, denticulis aëre aperto forte magis rubicundis.

37. Microphylla, foliis aggregatis connatis punctatis brevissimis acute triquetris edentulis, exsiccatis subinde laceratim ciliiformibus. Fruticuli minimi biunciales dense ramulosi (uno 6-unciali solum excepto).

micro-phyllum. 143. * M. (small green-leaved) foliis triquetris acuminatis subaristatis viridibus, intus basi pustulatis: ramulis confertissimis. *Nob. in Syn. succ. p.* 297.

Obs. Foliorum carina subinde minutim subserrulata.

mucro-natum. 144. * M. (bristle-pointed) foliis oblongo-ovatis acutis glaucescentibus, apice triquetris mucronulo niveo. *Nob. in Syn. succ. p.* 297.

pyg-mæum. 145. * M. (pygmy connate-leaved) foliis basi connatis oblongo-ovatis semiteretibus muticis; hyemalibus fere ad apicem junctis *Nob. in Suppl. pl.* 99.

Obs. Fruticulus 3-entalis ramulosus, ramulis robustulis divaricantibus cinereis. *Folia* æstivalia potiusve autumnalia duo solum ad apicem singuli ramuli, basi solum connata, at inter hæc ante hyemem tria paria ad apices fere connata distichè progrediuntur; quæ circa æstatem sequentem marcescunt, et persistunt cinerea, donec per alia vernalia minus connata folia ruptata sunt, relinquentia nervos persistentes cinereos ciliiformes, circum basin novorum foliorum. Hinc, cum charactere Mesem. ciliati op-

timè quadrat: sed vix idem. Hinc quoque octo folia ad apicem singuli rami in singulo anno per paria quasi producuntur.

M. (small-leaved grey) foliis acute æquilateri-triquetris subcymbiformibus canis obsoletè punctatis ciliato-pubescentibus, mucronulo recurvo: caulibus decumbentibus. *canescens.* 146. *

M. pulchellum. Nob. in Syn. succ. 298, corolla pulchella.

β *revolutum* (revolving branched); foliis crassioribus paululum: ramis primò e semine strictis, sed secundo anno revolute-recurvantibus; floribus ignotis.

Varietas singularis, e regio horto Kewense, a Capensibus seminibus orta, A.D. 1819.

Obs. The name of *pulchellum* for this small species (from its smart little flower) has been objected to by judicious botanists, on account of the rude appearance of its numerous decaying hoary and persistent leaves: it therefore now assumes the name of *canescens*.

TRIQUETRA: 6. Suffrutices: foliis plus minus triquetris distinctis, calycibus 5-phyllis, stylis 5.

† floribus rubicundis.

38. Lunata, foliis lunatis glaucissimis compressis exactè incurvo-lunulatis: floribus numerosis parvis roseis.

M. (great, crescent-leaved) foliis magnis confertis præcompresso-triquetris incurvo-lunatis glaucis- *maximum.* 147. *

simis: caule lignoso erecto dumoso. *Nob. in Syn. succ.* 292.

lunatum. 148. M. (small, crescent-leaved) foliis parvis confertissimis subconnatis compresso-triquetris arctissime incurvo-lunulatis caule erecto, ramis aggregatis.

M. lunatum. Willd. enum. 538.—*Salm. tent. bot.* 31.

Flores non vidi, at audivi, pallidè roseos.

falcatum. 149. M. (small, sickle-leaved) foliis minutis distinctis compresso-triquetris falcatis; ramulis numerosis filiformibus.

M. falcatum. Linn. sp. pl. 694.—*Dill. elth. f.* 275.

39. Pallidiflora, foliis mediocribus obtusè compresso-triquetris incurvis angustè acinaciformibus punctatis glaucis glabris: ramis densis patulis: floribus terminalibus solitariis magnis, sæpius pallide rubicundis. Difficillima sectio.

decumbens. 150. * M. (dwarf, pale-flowered) foliis valde compresso-triquetris perglaucis utrinque attenuatis incurvis, ramis confertissimis decumbentibus. *Nob. in Obs. Mesem. p.* 352.

Obs. *Flores* 2-unciales, fere albicantes, omnium rubicundorum dilutissimi.

incurvum. 151. * M. (incurved) foliis compresso-triquetris perglaucis utrinque attenuatis acinaciformibus, caule erecto, ramulis teretibus gracilibus effusis foliosis. *Nob. in Syn. succ.* 300.

Obs. Flores sæpe magis rubicundi quam in priore.

Valde variat.

β *dilatans* (gibbous-keeled); foliis triquetris incurvis subgracilibus perglaucis paucis inferne gibboso-dilatantibus, senectissimis deflexis. *Nob. in Syn. succ.* 300.

γ *pallidius* (pale flowering); floribus parum pallidioribus. *Syn. succ. l. c.*

δ *densifolium* (dense lesser-leaved); foliis paulo minoribus valde confertis.

E regio horto Kewense, a C. B. S., A.D. 1819.

ε *roseum* (rosy), foliis triquetris obtusis distinctis, basi attenuatis, glaucescentibus pellucido-punctatis, floribus terminalibus solitariis, petalis emarginatis.

M. roseum. Willd. enum. 535.

Obs. Huc quoque fortasse spectat M. multiradiatum. *Jacq. frag.* 53. 1. at semel solum et insufficienter vidi.

M. (crowded-leaved) foliis triquetris confertis robustis incurvis glaucissimis caule erecto valde ramoso. *confertum.* 152. *

M. confertum. Nob. in Syn. succ. 301.

Obs. Dense ramosum. *Folia* breviora at crassiora glauciora longeque confertiora quam in priore, ramis numerosioribus. *Flores* speciosi pallide rubicundi numerosi.

Prioris forte varietas.

M. (thick, sickle-leaved) foliis confertissimis crassis acinaciformiter falcatis grandipunctatis glaucis. *Nob. in Syn. succ.* 299. *falciforme.* 153. *

40. GLOMERATA, foliis angustissime acinaciformibus s. compresso-subtriquetris lævibus glaucescentibus; floribus parvulis corymbosè conglomeratis.

glomeratum. 154. M. (upright cluster-flowered) foliis obtuse triquetris compressis glaucescentibus incurvulis, utrinque attenuatis: pedunculis ramulisque filiformibus erectis compressis.

M. glomeratum. Linn. sp. pl. 694.—*Dill. elth. f.* 274.

inflexum. 155. * M. (inflèx-leaved) foliis confertis falcato-inflexis e triquetro-semiteretibus compressiusculis subglaucescentibus lævibus, ramis numerosis effuso-confertis. *Nob. in Suppl. pl. succ.* 98.

OBS. The above character (and a further one in the place cited) was made from young plants in a stove at Kew about the month of March 1819, and I have not seen them since, but possess a small well-dried specimen, and believe it to be nearly allied to *M. glomeratum* and *M. confertum.*

41. ASPERIFOLIA (*Salm.* Scabrida *Nob.*), foliis plus minus punctato-scabris absolute triquetris subcompressis, sæpe paulumper incurvantibus.

† Staminibus collectis, exterioribus deantheratis fere petaliformibus.

scabrum. 156. M. (the rough) foliis subtriquetris viridibus nitide verrucoso-scaberrimis, foliolis calycinis ovato-acuminatis; petalis apice crenatis.

M. scabrum. *Linn. sp. pl.* 692. — *Dill. elth. f.* 251.
α pallidum; floribus pallidioribus s. pallide roseis.
β purpureum; floribus saturatè purpureo-rubicundis pulchris.

M. (changeable rough) foliis subtriquetris glaucescentibus verrucoso-præscabris: foliolis calycinis ovato-acuminatis: petalis apice subbidentatis variabilibus. *Nob. in Syn. succ.* 268. *versicolor.* 157. *

M. (reflex-flowered) foliis subtriquetris præglaucis scabris, laciniis calycinis petalisque rubicundis distantiusculis retroflexis: staminibus collectis, cortice dealbato. *Nob. in Syn. succ.* 269. *retroflexum.* 158. *

M. (imbricate-leaved) pedale: erectum: lignosum: foliis linearibus obsolete triquetris glabriusculis glauco-albis, in summis ramorum senectorum imbricatim confertis. *Nob. in Suppl. pl. succ.* 94. *imbricans.* 159. *

Obs. This description was made from a plant in Chelsea Garden in the winter of 1818, which afterwards perished; and until recently, the author has not been able to find another of the same kind, or to distinguish it from its nearest affinities. At length, however, he has found in Chelsea Garden, what is, in all probability, the very same in a young state, and its nearest affinity in flower and habit appears to be *M. retroflexum.*

M. (smooth deflexing) foliis subtriquetris glaucis scabriculis deorsum attenuatis, caulibus subconfertis deflexis, petalis numerosis valde imbricantibus. *deflexum.* 160.

α petalis rubicundè pallescentibus basi purpureis.
M. deflexum. Ait. kew. ed. 1. *v.* 2.
β petalis saturatioribus concoloribus.
Obs. Corolla parum minor quam in M. retroflexo, petalis longe numerosioribus minus ad solem ardentem reflexis, et aliquantillum latioribus.

lepta-leon. 161. * M. (slender, deflexing) foliis subtriquetris glaucis sursum subattenuatis lævibus, carina scabricula: ramis distantiusculis filiformibus.
M. deflexum. Salm. tent. bot. p. 27. *nec Nob.* Bracteæ 2 foliiformes. *Calyx* 5-phyllus foliolis acuminulatis quasi inerme spinulosis, 2 interiobus membranâ exustâ munitis. *Corolla* fere ut in M. glomerato, rubicunda subpallescens. *Stamina* collecta erecta, exteriora paucula petalina rosea, at deantherata ut in affinibus, et parum patentia.
Obs. Rami pauciores graciliores quam in M. deflexo: foliis medio non crassioribus.

†† Staminibus expansis, omnibus antheriferis. Tres sequentes fortè non ejusdem generis cum prioribus 6, ob staminum structuram.

polyan-thon. 162. * M. (copious-flowered) foliis parvis glaucis triquetris scabris, ramis dumosis expansis confertis, cortice juniore rufo; floribus numerosissimis paniculatis valde imbricantibus. *Nob. in Syn. succ.* 270.

flexile. 163. * M. (little flexile) foliis parvis internodiis sæpe longioribus, per paria corniculatim inflexis glaucis subtriquetris obtusis lævibus inferne attenuatis; angulis, apice, calycibusque obtusatis: caulibus

erectis, ramis effusis subnumerosis flexuosis patulis.

Communicavit amicus Eques Parmentier nomine M. laxi.

Flores fere ut in M. polyantho, at uti rami et folia longe distantiores.

Nihilominus fortè mera varietas junior. Vix.

M. (dense crowding-leaved) foliis (in senectis) glomeratissimis robustulis subincurvo-recurvulis, clavatim compresso-obtuse-3-quetris, punctato-scabriculis glaucis: ramis dumosis decumbenti-assurgentibus. *polyphyllum.* 164. *

Vigebat in regio horto Kewense 1819, e Capite Bonæ Spei. G. H. ♄.

Obs. Facies fere M. deflexi, vel penultimi, at penultimo 4-plo robustius. Flores cymosè paniculati ut in priore at certe duplo majores, et majus simulantes illos M. emarginati. Bona species. In plantis juvenilibus folia vix conferta.

Floret Jun.—Oct.

M. (deep violaceous) foliis compresso-obtusè-triquetris, punctato-asperiusculis glaucis: foliolis calycinis subæqualibus aculeiformibus patulis. *violaceum.* 165.

M. violaceum. Pl. grass. ?

Communicavit amicus Parmentier Eques, A. D. 1120: et olim Princeps de Salm Dyck, at moriens ob iter.

Flores (Octob.) expansi [non vidi], antemeridiani alte violacei, fere ut in M. polyphyllo, extus pallidiores. Petala valde inæqualia, intima pedetentim minora, tenuissima, exteriora emarginata. *Stamina* pauca brevia alba *antheris* luteis, innuptis calycis altitudine. *Styli* 5 subulati erecti

virescentes, lente intus ad basin ramentacei, extus læves.

emarginatum. 166. M. (notch-petalled) foliis subglaucis subtriquetris scabris, calycibus subspinosis; petalis apice altè emarginatis.

M. emarginatum. Linn. sp. pl. 692.—*Dill. elth.* 250.

β. humilius, glaucius, foliis asperioribus.

Vidi semel in regio horto Kewénse, e C.B.S., 1821.

Flores fere ut in α, at forte majores.

Vix idem cum M. violaceo, quod non satis vidi.

42. Dilatata.

dilatatum. 167. * M. (gibbous-keeled) foliis distinctis remotis subrecurvis triquetris valde compressis punctatis glaucis: angulo carinali post medium sæpe gibboso. *Nob. in Syn. succ. &c.* 303.

Obs. Nullo vere affine, caule lignoso tripedali fruticoso erecto. *Flores* terminales subternati parvi albi, petalis uniserialibus.

43. Virgata.

virgatum. 168. * M. (slender twigged) foliis distinctis distantibus triquetro-compressis acutis subglaucis punctatis; ramis virgatis elongatis; caule tripedali fruticoso suberecto.

M. virgatum. Nob. in Syn. succ. &c. 290.

Obs. *Flores* pauci terminales parvi. *Ramuli* erecto-effusi tenues singulariter valde compressi ut in sectione sequente. Nullo vere affine, ramis senectis decumbentibus.

44. Bracteata, Salm. (*Adunca inclaudentia* Nobis). Fruticuli erecti ramosi ramulis præcompressis. *Folia* distincta acutè triquetra plus minus asperiter punctulata. *Flores* altè lateque bracteati, semper expansi, e fibrillis brevibus densis ramentaceis duris centralibus lutescentibus petaloidibus. Calyx 5-phyllus. Proprium Genus.

M. (white ringed double bract) foliis viridibus, bracteis quatuor late ovatis carinatis, calycem amplectentibus, petalis basi albis, ramulis fusco-rubris. *bracteatum.* 169.

M. bracteatum. Nob. in Syn. succ. &c. 289.

M. (early flowering broad bract) ramis decumbentibus ancipitibus brunneo-canescentibus; foliis acinaciformi-triquetris, lateribus infernè submembranaceis; punctis pellucidis magnis elevatis. *anceps.* 170. *

M. anceps. Nob. in Syn. succ. 289.

Obs. Bracteæ rarius duplicatæ, valdè dilatatæ.

α. *Flores* longè saturatiores quam in M. stellato, saturatè rubicundi.

β *pallidum* (pale-flowered); ramis numerosis croceo-rufis: foliis acinaci-formitriquetris s. arcuato-incurvantibus pellucenter punctato-scabriusculis, minus viridibus: petalis toto pallidè rubicundis.

Florebat in regio horto Kewense Sept.—Nov. 1819.

gracile. 171. * M. (slender, early, bracteate) foliis glaucescentibus gracilibus scabriculis, bracteis ovato-acutis calycem fere amplectentibus, ramis gracillimis strictis.

M. stellatum. Nob. in Syn. succ. 290. *et Hortorum.*

α. floribus saturate rubicundis.

β gracilius (pale flat-bracted narrow-cupped) omnium affinium floribus pallidioribus, roseisve: foliolis calycinis bracteisque præcompressis angustioribus.

Propria species ob tenuiores calyces bracteasque magis compressas?

Obs. As the *M. stellatum* of other authors (well figured by Decandolle in *Plant. grass.* 29.) does not belong even to the present section of the Genus; I have relinquished that name (a garden one merely when I adopted it) for the present species, and applied to it that of *gracile*, which is peculiarly applicable.

radiatum. 172. * M. (large-flowered, bracteate) foliis glaucescentibus; bracteis late ovatis, pedunculis superne amplectentibus; ramulis subconfertis, cortice canescente. *Nob. in Syn. succ.* 289.—*Dill. elth. f.* 249.

Obs. *Corolla* major quam in affinibus toto saturate rubicunda. *Rami* confertiores.

compressum. 173. * M. (rough, deep-flowered, bracteate) foliis glaucescentibus æquilateri-triquetris scaberrimis, bracteis ovato-acutis pedunculos superne amplectentibus. *Nob. in Syn. succ.* 289, &c.

Obs. Ramuli maxime compressi, floribus mediocribus saturatissime rubicundis.

M. (rough, paler-flowered) foliis 6-12-linearibus semierectis glaucescentibus punctulis pellucidis asperiusculis. *Nob. in Syn. succ.* 334. *patulum.* 174. *

Obs. M. compresso proximum, at minus rigidum asperum, s. erectum, foliis brevioribus latioribus crassioribus glaucioribus magisque expansis, floribus majoribus pallidioribus. (Octob. et Novemb. 1814.)

M. (large rough-leaved bracteate) foliis compresso-triquetris longiusculis subcærulescenti-viridibus pellucide punctatis scaberrimis, apice aduncis, carina subinde unidentata. *asperum.* 175. *

Habitat C. B. S. G. H. ♄.

Cultivated in the Earl of Tankerville's fine Collection in 1818.

α majus; foliis latioribus.

Obs. The leaves in young plants are longer than usual in this family, and with a very slight cærulescent tint, or blue-green. The flowers are unknown.

β cærulescens; foliis angustioribus lævioribus cærulescenti-viridibus.

E regio horto Kewense, a C. B. S., 1820.

Flores non vidi.

45. Eximia, ramis brevioribus adscendentibus contiguis; foliis longis acute triquetris integris valde confertis: floribus magnis speciosis lætissime rubicundis. *Quasi* tres formosi fratres.

M. (the white-eyed red) humile: foliis viridibus ad solem micantibus, ramulisque confertissimis; caulibus floriferis decumbentibus. *formosum.* 176. *

Obs. Habitus fere sequentis, at omnino humilius. *Folia* 1-3-uncialia viridia 2-3 lineas lata abrupte acuta. *Flores* sæpius subternati 2-unciales, in ramulis lateralibus vel terminalibus foliosis, potiusve bracteosis decumbentibus, 5-10-uncialibus cum foliis oppositis subdistinctis; superioribus internodios vix æquantibus. *Petala* numerosa pluriserialia speciosa lata et lætissime rubicunda, apicibus obtusis subdenticulatis. *Calyx* 5-phyllus, laciniis subæqualibus 2 planis, 3 exuste membranaceis. *Filamenta* petaliformia (sive fibrillæ) paucissima; *vera* patentia alba. *Styli* 5-6, filamentis breviores, nuptati expansi sublanceolati horizontales, ad lentem ramentacei, sordidè virescentes. Cætera non examinavi.

Florebat in regio horto Kewense in Aug.—Sept. 1820, a seminibus Capensibus ortum.

spectabile. 177. * M. (glaucous showy) subhumile: foliis glaucis triquetris ramisque valde confertis: caulibus floriferis adscendentibus erectisve; stylis obovatis staminibus albidis duplo brevioribus. — *Nob. in Syn. succ.* 240.—*Bot. mag.* 396.

Obs. Folia ad solem micant, si glaucus color cum digito deletus sit.

conspicuum. 178. * M. (dark red, showy) foliis viridibus ad solem micantibus, ramisque confertis: caulibus floriferis erectis. *Nob. in Syn. succ.* 240.

Obs. Penultimo valde affine at pedale, 4-plo majus, foliis duplo longioribus ramis minus confertis. *Styli* lanceolati sublongitudine staminum roseorum.

46. Blanda, caule erecto suffruticoso, foliis subconfertis longis triquetris

viridibus; petalis speciosis pluriserialibus magnis dilutissime roseis albisve. Duæ blanditæ species.

M. (the great blush-flowered) foliis confertis compresso-triquetris perviridibus, ramulis mediocribus confertis compressis, pedunculis equalibus bracteâ longioribus, corolla ad solem expansa plana. *Nob. in Suppl. pl.* 95.—*Bot. reg.* 582. *blandum.* 179. *

Obs. Flores Jun.—Decemb. terminales magni laxè subcymosi antemeridiani, primo albi, mox pallide rosei sive dilutissimè rubicundi. *Calycis* laciniæ inæquales, acuminatæ. *Germen* mediocre. *Styli* 5 breves ramentacei. Ramuli castaneo rufi, fere graciles.

M. (the fair incurving white) foliis compresso-triquetris glaucescentibus, ramulis robustis teretibus, pedunculis clavatis longitudine bractearum, germinibus obtusis grossis, corolla incurva. *curviflorum.* 180. *

Habitat C. B. S.

Introd. a Dom. Gulielm. Ross, apud Stoke Newington, A. D. 1818, qui mihi communicavit.

Obs. Prioris venustam varietatem primo credidi, at differt in statura 2-plo majore; ramulis paucioribus triplo majoribus longè minus compressis, cortice rufo badiovè, demum cinereo; foliis duplo crassioribus et subinde supernè magis dilatatis magis patulis glaucescentibus nec viridibus. *Corolla* speciosior, minus aperta, e petalis longioribus elegantissimè magis incurvantibus albis; morientibus solum tincturâ dilutissime roseâ. In cæteris priore convenit.

†† Floribus luteis, s. aurantiis.

47. Aurea: Suffrutices erecti, foliis distinctis punctatis, obtuse acuteve triquetris: floribus terminalibus subsolitariis magnis aureis aurantiisve, petalis pluriserialibus. Tres sumptuosæ species.

aureum. 181. M. (great orange) foliis cylindrico-triquetris, petalis croceis, stylis atropurpureis.
M. aureum. Linn. syst. nat. ed. 10. *p.* 1600.—*Bot. mag.* 262.

aurantium. 182. * M. (glaucous orange) foliis præglaucis triquetris subcompressis, bracteis semiteretibus; calycinis foliolis oblongo-ovatis; petalis saturate aurantiis imbricatis: stylis externe purpureis. *Nob. in Syn. succ.* 265.
Var. *β* in *Misc. nat.* 84, est mera planta valde florens.

glaucum. 183. M. (great gold-flowered) foliis acute triquetris præcompressis glaucis scabriusculis; calycinis foliolis ovato-cordatis: petalis sulphureis, pistillis luteis.
M. glaucum. Linn. sp. pl. 696.—*Dill. elth. f.* 248.—*Pl. gr.* 146.
β. foliis brevioribus latioribus, undique magis scabris. *Nob. in Misc. nat.* 84.

48. Cymbiformia, Suffrutices erecti, ramis sæpe concinnè decussatis, foliis parvis obtuse triquetris plus

minus cymbiformibus: floribus luteis roseisve.

M. (upright tetragonous) foliis trigono-cylindricis, caule erecto tetragono fruticoso (corollis luteis). *Thunb. prod.* 91. *tetragonum.* 184.

M. (tall, upright, boat-leaved) foliis triquetris obtusis expansis glaucescentibus grandipunctatis, caule ramosissimo lignoso rigidissimo stricto. *Nob. in Syn. succ.* 262. *strictum.* 185. *

Obs. Frutex 3-pedalis.
Flores non vidi.
An priore (quod non vidi) satis distinctum? An idem?

M. (small, boat-leaved) foliis triquetris patentibus cymbiformibus glaucis, caulibus ramosis, ramulis filiformibus suberectis confertis. *Nob. in Syn. succ. &c.* 263. *cymbiforme.* 186. *

An Mesem. (sessile) foliis trigono-globosis glabris caule erecto tereti ramoso, floribus sessilibus (rubris). *Thunb. prod.* 89?
Obs. Senectæ plantæ dodrantales.
Flores non vidi.

M. (grain-leaved) foliis distinctis subtriquetris ovatis graniformibus trilinearibus, floribus luteis, vespertinis, staminibus collectis: caulibus expansis triuncialibus. *graniforme.* 187. *
Ficoides capensis &c. Brad. succ. t. 20.—*Nob. in Syn. succ.* 263.

M. (soft) foliis patentibus turgidè triquetris canescentibus farctis, margine obtuso lineato-punctato, ramis confertis ancipitibus decumbenti- *molle.* 188.

bus. *Nob. in Syn. succ.* 261.—*M.* (*molle*) *foliis triquetris erectis &c. Ait. kew. ed.* 1. *v.* 2. *p.* 192 ?

Obs. Flores solitarii rubicundi parvi terminales.

Thunbergii. 189. M. (Thunberg's decumbent smooth.)
M. (læve) foliis trigonis lævibus caule decumbente articulato (floribus luteis). *Thunb. prod.* 90.
Nec M. læve (upright white-wooded) floribus rubicundis. *Ait. kew. ed.* 1. *v.* 2. *p.* 187.
Non vidi.

TERETIUSCULA: 7. Suffrutices foliis distinctis punctatis teretiusculis sine papulis; floribus antemeredianis rubicundis, aurantiis, luteisve.

49. Tenuifolia (*Salm.*), foliis cylindraceo-triquetris, floribus luteis coccineisve.

coccineum. 190. * M. (scarlet flowered) foliis tereti-triquetris subcompressis obtusis glaucescentibus, pedunculis basi lævibus, calycinis foliolis obtusulis subæqualibus: petalis coccineis. *Nob. in Syn. succ. p.* 265.

A M. bicoloro dignoscitur foliis semper brevioribus.

α *obtusum;* calycibus foliolis valde obtusatis, ramis forte minus erectis, floribus coccineis. *Pl. grass.* 83.

β *acutius;* calycibus foliolis acutis, ramis erectis petalis extus purpurascentibus.

γ *minus;* humilius: calycinis foliolis acutis. *Corolla* in omnibus varietatibus rectim antemeridiana.

M. (two-coloured) foliis subtriquetris acutis viridibus, pedunculis calycibusque inæqualibus scabris, petalis intus luteis. *bicolorum.* 191.
M. bicolorum. Linn. sp. pl. 695.
α erectum ; elatius : asperius ; ramis erectis. *Dill. elth. f.* 258.
β patulum ; humilius : lævius : ramis minus erectis patulisve.
γ minus ; duplo plusve minus : lævius : ramis magis erectiusculis.
M. bicolorum minus. Nob. in Obs. Mesem. 246.
Communicavit amicus Dom. Carolus Law.
Forte hæc var. cum var. *β*. sequentis varietates sunt.

M. (unequal-cupped) foliis subtriquetris perviridibus, pedunculis fructiferis compresso-clavatis : laciniis calyciniis valde inæqualibus, membrana longioribus : ramis effusè decumbentibus. *Nob. in Syn. succ.* 266.—*Brad. succ. tab.* 7. *inæquale.* 192. *

Obs. Fere media inter priorem et sequentem. Forte M. bicoloris varietas, at minus ramosa.
Folia e frigore rufo maculata.

M. (slender-leaved) foliis semiteretibus subcompressis subulatis viridibus glabris internodiis longioribus : petalis coccineis, caulibus erectis, vel procumbentibus. *tenuifolium.* 193.
α procumbens (trailing, slender-leaved) ; ramis prolixis effuso-procumbentibus flexuosis, ad nodos radicantibus.
M. tenuifolium. Linn. sp. pl. 592.—*Dill. elth. f.* 256.
β erectum (upright, slender-leaved) ; ramis (nisi senectis) erectis, foliis longioribus distantioribus s. minus confertis, et majoribus quam in *α*, floribus coccineis.

Forte propria species.

Ambas varietates communicavit Regius Professor Williams, ex horto (in hoc genere) celeberrimo Oxoniensi, A. D. 1819.

M. tenuifolium. Pl. grass. 82 ?

variabile. 194. * M. (changeable-flowered) foliis subtriquetris compressis glaucis scabris, calycinis laciniis subæqualibus, petalis luteis mox subroseis; caulibus effusis subdecumbentibus. *Nob. in Syn. succ. p.* 266.

α *densius;* asperius: ramis et foliis magis contiguis.

β *lævius;* ramis et foliis lævioribus magis distantibus.

50. Adunca. Suffrutices vix semipedales; foliis subulatis teretiusculis sæpe incurvo-recurvulis, apicibus semper aduncis acutis, floribus rubicundis antemeridianis.

spiniforme. 195. * M. (thorn-shaped) ramulis foliisque cylindraceis subulatis spiniformibus erectis, apicibus subrecurvis, pedunculis carinisque bractearum scabriusculis. *Nob. in Syn. succ.* 291.

β *subaduncum. Nob. in Suppl. pl. succ.* 96.

curvifolium. 196. * M. (great curve-leaved) foliis subdistantibus, basi expansis, tunc incurvo-recurvis compresso-semiteretibus subulatis, ramulis firmis suberectis asperiusculis angulato-compressis. *Nob. in Syn. succ.* 290.—*M. ceratophyllum. Willd. enum. Suppl.* 36 ?

β *minus.*

In hort. Chels.

M. (lesser curve-leaved) foliis triquetro-subulatis infernè incurvis, supernè recurvo-subflexuosis, apice subaduncis: ramulis subfiliformibus compressis flexuosis decumbentibus confertis. *Nob. in Suppl. pl.* 98. *flexifolium.* 197. *

Obs. Priore magis humi depressum, triplo minus.

α perviride (dark-green); foliis saturate viridibus, floribus parvis rubicundis.

E regio horto Kewense.

β læte-virens (apple-green); minus: foliis pallide viridibus.

Communicavit Dom. Gulielm. Ross, apud Stoke Newington.

Flores non vidi.

M. (small curve-leaved) foliis confertis semicylindricis acuminatis apice valde recurvis, ramulis erectis confertissimis. *Nob. in Syn. succ.* 291. *aduncum.* 198. *

Ultimo duplo minus, non humum versus depressum, sed omnino erectum densum.

M. (thready-stemmed) cespitosum: foliis confertissimis semicylindraceis acuminatis caulibus filiformibus debilissimis reptantibus. *Nob. in Syn. succ.* 291. *filicaule.* 199. *

51. Spinosa.

M. (thorny) foliis tereti-triquetris punctatis distinctis, spinis ramosis. *Linn. sp. pl.* 693.—*M. fruticescens ramis triacanthis. Dill. elth. f.* 265. *spinosum.* 200.

Nullo affine, nisi forte M. dilatato, s. M. virgato.

52. Corallina, Suffrútices læves erecti lignosi, ramis concinnè decussatis numerosis cortice plus minus castaneo, foliis subcylindraceis valde glaucis: floribus terminalibus paucis magnis rubicundis.

stipulaceum. 201. M. (stipuled, tall) foliis longis tereti-triquetris subulatis incurvantibus glaucis, basi marginatis.
M. stipulaceum. Linn. sp. pl. 693.—*Dill. elth. f.* 267. 268.

corallinum. 202. M. (lesser coral-stemmed) foliis teretiusculis incurvantibus lævibus medio subcrassioribus glaucis: caule stricto ramosissimo, cortice pullo spadiceove.
M. corallinum; foliis teretibus glabris, caule stricto ramosissimo. *Th. prod.* 89.
Vigebat in regio horto Kewense A. D. 1819, e seminibus Capensibus ortum.

Haworthii. 203. * M. (great rosy-flowered) foliis subulatis tereti-triquetris acutis subincurvatis valde glaucis; cortice rufo castaneove.
M. Haworthii. Donn. hort. cant. ed. 2—6. *p.* 66. —*Nob. in Syn. succ.* 302.

læve. 204. M. (blunt white-leaved) foliis confertis cylindraceis obtusis arcuatis glaucissimis lævibus.
M. læve (upright white-wooded); foliis cylindraceis obtusis amplexicaulibus lævibus, calycibus quinquefidis: laciniis oblongis obtusis. *Ait. kew. ed.* 1. *v.* 2. *p.* 187?—*Nob. in Syn. succ. &c.* 302.
Obs. *Flores* non vidi.

53. Sebacea, Suffrutices suberecti foliis confertis cylindraceis obtusis farinoso-glaucis subcæruleis mollibus impunctatis, sine papulis; corollis flavis croceisve; capsulis parvis.

M. (long spit-leaved) foliis basi connatis confertissimis præglaucis triquetro-cylindricis arcuatis obtusis submucronatis sebaceis: floribus pomeridianis. *verruculatum.* 205.

M. veruculatum. Linn. sp. pl. 696.

α *Dillenii. Dill. elth. f.* 259.

β *Candollii* (cluster spit-leaved). *Pl. grass.* M. verruculatum ramulis foliisque confertioribus brevioribus, sive conglomeratis ramos toto tegentibus.

Ex horto Oxoniense nuperrime communicavit Regius Professor Williams.

At olim habui ex oppido Leeds, in com. Ebor. nomine "the tallow-leaved Fig-marygold."

Obs. *Folia* valde sebacea, breviora at crassiora longeque confertiora quam in α, apicibus (aëre aperto) eleganter purpureo finientibus.

M. (purple-saffron-flowered) foliis confertis tereti-triquetro-semicylindris farinoso-glaucis obtusis internodio brevioribus sebaceis, foliolis calycinis productim præinæqualibus; corollis innuptis croceis extus purpureis. *Nob. in Syn. succ. p.* 259. *purpuro-croceum.* 206. *

M. insititium. Willd. enum. 536. 54.

Obs. Frigoris magis impatiens cæter.

β *flavo-croceum* (yellow-saffron-flowered) foliis subconfertis distantibusve internodio brevioribus tereti-semicylindricis valde obtusis farinoso-glaucis, glaucescentibusve: corollis utrinque

flavis, nuptatis s. morientibus croceis: caulibus magis flexis.

HABITAT C. B. S., ubi invenit amicus Dom. Burchell; et communicavit A.D. 1816.

FLORET Maio—Septemb.

OBS. Forte propria species: omnino elatius et magis flexum quam *α*, et lignosius, calycibus (præcipue fructiferis) longè productim majoribus carnosis s. pulposis, floribus paulo minoribus: foliis remotioribus firmioribus, frigoris minus impatientibus. *Stamina antheræque* nuptatæ breves luteæ. *Styli* sub-7, (nuptati) brevissimi acuti expansi, ad lentem ramentacei.

γ minus; var. *α.* simillimum; at foliis brevioribus, corollis extus minus purpureis.

croceum. 207. M. (saffron-flowered) foliis confertis triquetris semiteretibus farinoso-glaucis subsebaceis obtusiusculis internodiis brevioribus, foliolis calycinis subinæqualibus, petalis obtusis croceis.

M. croceum. Jacq. Frag. t. 11. *f.* 2.—*Nob. in Suppl. pl. succ.* 97, observatione exclusâ, quæ ad varietatem *β* prioris pertinet.

OBS. Priore vix satis distinctum ramis confertioribus, foliolis calycinis magis æqualibus, corolla minore, semper utrinque saturate crocea. *Stamina* et *antheræ* exiguæ breves luteæ. Frigoris minus impatiens priore.

PAPULOSA: 8. Foliis ramulisve fere semper plus minus papulosis, radice subinde bienni annuave.

54. PLATYPHYLLA, radice annua vel bienni, rarissime fruticulosa; foliis

caulibusque ad solem nitidissimè papulosis.

† Foliis plus minus undulatis.

M. (the diamond Fig-marygold) foliis amplissimis ovato-acutis undulatis, alatim-decurrenter petiolatis crystallino-papulosis, subtus papuloso-crystallinis triplinerviis, nervo principi superne triplicato, radice bienni. *crystallinum.* 208.
M. crystallinum; foliis alternis ovatis papulosis undulatis. *Linn. sp. pl.* 688.—*Dill. elth. f.* 221. —*Nob. in Suppl. pl.* 92.
Obs. Sequenti simillimum et triplo majus, erectius, minus glaciatum. At flores non vidi, neque bene examinavi.
Habitat C. B. S. St. ♂.

M. (the ice-plant) foliis amplis alternis ovatis præ-undulatis, uti caulibus calycibusque, papuloso-glaciatissimis; radice annua.—*Nob. in Supp. succ.* 92. *glaciale.* 209. *
Habitat in Græcia prope Athenas.

M. (laurel-leaved) foliis oppositis cuneato-obovatis, caule valde flexuoso, petalis antherisque rubicundis, radice fusiformi. *Nob. in Misc. nat.* 49.—*Pet. gaz. t.* 84. *f.* 4. *Laurifolium.* 210. *
An hujus generis? Vix Othonnæ species.

M. (curled) foliis alternis ovatis petiolatis undulatis, petalis minutis rubicundis, radice annua. *Nob. in Misc. nat.* 44.—*Pet. gaz. t.* 88. *f.* 5. *crispum.* 211. *

M. (jagged-leaved) foliis oblongis pinnatifidis papulosis, petalis minutis luteis. *pinnatifidum.* 212.

M. pinnatifidum. Linn. syst. veg. 470. *Suppl.* 260.—*Bot. magaz.* 67.

†† Foliis planioribus vix undulatis, basi cuneatis.

sessiliflorum. 213. M. (small ice-plaut) foliis planis spathulatis, caulibusque papulosis; ramis divaricatis; floribus sessilibus (luteis). *Ait. kew. ed.* 1. *v.* 2. *p.* 193.

α *luteum;* ut supra.

β *album;* flore albo: foliis ovatis petiolatis papuloso-nitentibus, præcipue subtus; summis lanceolatis subalternis: floribus paniculatis parvis sessilibus, radice subbienni. *Nob. in Suppl. succ.* 93.

humifusum. 214. M. (narrow-leaved ice-plant) foliis amplexicaulibus spathulatis carinatis: papulis conicis scabris, petalis minutissimis. *Ait. kew. ed.* 1. *v.* 2. *p.* 179.

flaccidum. 215. M. *Jacq. Salm. tent. nov. p.* 16, prope M. humifusum.
Non vidi.

papulosum. 216. M. (papulose) foliis oppositis spatulato-oblongis papulosis, floribus pedunculatis filiformibus deflexis.

M. papulosum. Linn. suppl. pl. 259, (*excluso synon. Jacq.*) ⊙.

Aitoni. 217. M. (Aiton's) foliis oppositis alternisque ovato-spatulatis subundulatis papulosis, ramis calycibusque angulosis: floribus pomeridianis rubicundis.

M. Aitoni. Jacq. vind. 3. *t.* 7.

M. angulosum. Thunb. prod. 91?

M. (spear-leaved) foliis alternis lanceolatis obtusiusculis papulosis, calycibus pedunculatis crystallinis. *Nob. in Misc. nat.* 45. *lanceolatum.* 218. *
α album; floribus parvis albis.
β roseum; majus: foliis lanceolato-spatulatis, pedunculis 6-12 linearibus teretibus papuloso-nitentibus: calycinis foliolis 3 foliiformibus expansis; 2 minoribus membranaceis: corolla rubicunda.
Obs. Varietas e seminibus *α* orta, in horto meo Eboracensi A.D. 1813, quasi media inter M. lanceolatum et M. Aitoni.
Forte hybrida proles, nempe ambæ plantæ copiosè florebant A.D. 1812 in horto in eodem loco, intermixtæ: nunc eheu! ambæ deletæ: sed optime exsiccatas possideo.

M. (Volckamer's small ice-plant). Ficoides africana procumbens latifolia annua: floribus argenteis minoribus. *Volck. norimb.* 166, cum icone.—*Nob. in Obs. mesemb. p.* 426. *Volckameri.* 219. *
Obs. Priore majus, at valde affine.
Non vidi.

M. (thready, spear-leaved) foliis lanceolatis papulosis, floribus axillaribus sessilibus, caule filiformi decumbente. *Thunb. prod.* 89. *filiforme.* 220.
An satis a penultimo distinctum? An idem cum M. sessilifloro, supra?

††† Foliis integris cordatis.

M. (heart-leaved) foliis petiolatis cordato-ovatis, caulibus fruticosis procumbentibus effusis: calyce quadrifido bicorni. *cordifolium.* 221.
M. cordifolium. Linn. suppl. pl. 260.—*Smith spicileg. bot. t.* 6.
Species singularis, forteque sui generis.

55. Pomeridiana (afternoon flowering), radice annua, foliis oppositis sæpius spatulato-lanceolatis, et ad lentem parum papulosis: floribus pomeridianis luteis, speciosis: filamentis subconvergentibus, exterioribus deantheratis petaloidibus: germine hemisphærico.

pomeridianum. 222. M. (great-cupped) folis late lanceolatis planiusculis lævibus ciliatis distinctis: caule, pedunculo, germinibusque hirtis.

M. pomeridianum. Linn. sp. pl. 698.

α *Curtisii*; ut supra (*Bot. magaz.* 540) petalis calyce vasto brevioribus.

Obs. Foliola calycis valde inæqualia, 2, minora, basi membranacea: 3, 2-4-plo majora, lanceolatè dilatata, variè obtusata, et omnino foliacea: at laterales flores (ut in affinibus) semper habent cum minoribus petalis calyces sæpius longè minores.

β *Andrewsii* (naked, plantain-leaved); minus; glabrum; nudum: foliis ovato-oblongis summis subciliatis; petalis calyce mediocre longioribus.

M. glabrum. Bot. rep. 57, non Aitoni aliorumque.

Fortasse species propria.

Folia superiora calycesque solum ciliata, foliolis calycinis ovato-lanceolatis linguæformibusve.

Candollii. 223. * M. (naked narrow-cupped) foliis oppositis lanceolatis acutis subciliatis: pedunculis subterminalibus longissimis solitariis hirtis: foliolis calycinis lanceolato-ovatove-acuminatis loratis.

M. Helianthoides. Pl. grass. 135, non *Aitoni, aliorumque.*

M. (woolly lance-cupped) foliis lineari-lanceolatis ciliatis; caulibus ramosis effusis; pedunculis, bracteis, calycibusque flore brevioribus, sublanato-villosis. *Nob. in Misc. nat.* 47.—*Breyn. cent. t.* 79.—*Moris. s.* 12. *t.* 6. *f.* 13.—*M. calendulaceum. Nob. in Misc. nat.* 471. *&c.* sed differt a sequente, foliolis calycinis majoribus ovatis-lanceolatis, s. ovato-linearibus: *Germine* lanato villoso: *Stylis* circiter 19. *pilosum.* 224. *

M. (hispid narrow-cupped) foliis lineari-lanceolatis vix spathulatis calyceque ciliatis; foliolis calycinis lorato-linearibus crassis turgidisve, petalos æquantibus: caulibus valde ramosis: pedunculis scabris, germinibusque parcè hispido-pubescentibus, brevibus albis pilis. *calendulaceum.* 225. *

HABITAT C. B. S. ⊙.

FLORET Aug.

E regio horto Kewense A. D. 1819.

OBS. The *M. calendulaceum* of *Misc. nat.* 47, taken from the old figures of Morison and Breynius, appearing now to merge into our *M. pilosum* (erroneously written *hirtum* in *Misc. nat.* 46. *line* 4), the name of *calendulaceum* is used for the present plant, which it most closely resembles.

M. (spatula-leaved) foliis spathulatis planis lævibus; pedunculis longissimis; calycibus basi planis angulatis. *Ait. kew. ed.* 1. *v.* 2. *p.* 193. —*Non Pl. grass.* 135, *quod M. Candollii supra est.* *Helianthoides.* 226.

OBS. Læve omnino, sine punctis papulisve, foliis lanceolatis nudis virescentibus, petiolis basi dilatatim semiamplectentibus vel vaginantibus. *Pedunculi* 4-unciales et ultra. *Folia* calycina

plana, duo minora basi membranacea fere planatim pyramidalia. *Petala* lucidissimè lutea, extima uncialia, interiora sensim sensimque minora filamentiformia. *Filamenta* brevia tenuissima lutea: polline pallido. *Styli* sub 10 infernè connati; nuptati longi subulati recurvi pallidi, lente puberuli. *Flores* duos pomeridianos solum examinavi.

Obs. Hæc Sectio ob vastum calycem, stylos numerosos, germina depressa multilocularia, tempusque florendi, forte genus proprium.

56. Limpida. Subacaulia, at ramosa: crystallina s. pyropæa: radice annua: foliis subcuneato-linearibus, valde-limpido-papillosis, et parum convexis, supra sæpe læte inflexo-canaliculatis.

limpidum. 227. M. (transparent) foliis oppositis spathulatis obtusis scabridis: papulis oblongis, foliolis calycinis oblongis obtusis medio coarctatis. *Ait. kew. ed.* 1. *v.* 2. *p.* 183.

M. cuneifolium. Jacq. ic. 3. *t.* 288.

Obs. Radix annua fibris ramosis. *Rami* effusi sæpe rufescentes, uti folia, pedunculi, calycesque scabrido-papulosi; papulis ad lucem crystallinis sæpeve formosissimè pyropæis, s. splendentibus uti pyropus. *Folia* lanceolato-spathulata e petiolis fere orientia, basi costâ rubrâ. *Pedunculi* 3-4-unciales deflexo-adscendentes teretes. *Calyx* hemisphæricus nitidus, foliolis 3 majoribus oblongis obtusioribus medio singulariter coarctatis, 2 minoribus coarctatione nulla, apice minus obtusis, at parum ad latera infra apicem membranaceis. *Petala* uncialia ruber-

rime lucida (in autumno pallidiora), extus pallida, medio costatim lineâ saturatiore. *Filamenta* brevia ruberrima. *Antheræ* luteæ. *Styli* 5 parvi erecti quoque ruberrimi, antherarum altitudine.

Communicavit cum sequente amicus Dom. Aiton.

A sequente vix differt nisi in foliis latioribus, et floribus pallidioribus magisque politè nitentibus atque majoribus.

M. (the 3-coloured annual) foliis linearibus inflexo-canaliculatis obtusis scabrido-papulosis; pedunculis calycibusque nitidè papillosis, vel pyropæo-crystallinis. *tricolor.* 228.

α pyropæum (the ruby); ramis pedunculis calycibusque ad lucem pulcherrime pyropæis: petalis ruberrime lucidis.

M. pyropæum α. Nob. in Suppl. succ. p. 99.— *M. tricolor. Bot. mag.* 2144, at cum flore pallidiore picto, *et Willd. enum.* 530.

β roseum (the rosy); omnino pallidius, sine pyropæo colore, flore roseo.

M. pyropæum β. Nob. in Suppl. pl. succ. 99.

Obs. This is the pale var. mentioned in *Bot. mag.* 2144, on the authority of Mr. Anderson, who never saw the plant, having only heard of three varieties being known to the author.

γ album (the blush-white); longe pallidius, flore roseo-albo.

Apud Kew vidi florentem A. D. 1819.

M. lineare; acaule, foliis linearibus (flore albo). *Thunb. prod.* 88.

Descriptio α in horto nostro A. D. 1820.

Flores numerosi unciales pulcherrimi primo mane ad solem aperientes, altissimè et vivacissimè rubicundi, basin versus albi, at ipso basi pyropæi,

petalis uni -vel bi-serialibus obtusis integris. *Filamenta* brevia, antheræque atropurpureæ; omnia antherifera, fibrillis petaloideis deantheratis nullis. *Styli* 5 exigui demum ad lentem expansi ramentacei s. plumosi, pyropæi, staminibus humiliores. *Germen* depressum pyropæum, annulo marginali staminifero atropurpureo, et nitidissimo quasi nectarifero.

Cum priore forte Genus proprium, characteribus sequentibus.

Petala uniformia uni- bi-serialia.

Fibrillæ (filamenta petaloidea sæpe subantherifera) nullæ.

Germen annulo subnectarifero lucente staminifero cinctum. Formosæ duæ species; scintillantes, quasi gemmatæ sorores.

gramineum. 229. * M. (grassy yellow-flowered) foliis radicalibus, gramineis, scapo filiformi, calycinis laciniis 5 lanceolatis corolla lutea longioribus: radice annua. *Nob. in Misc. nat.* 55. *excluso synon. Thunberg.—Pet. gaz.* 88. 7. *Cat.* 487.

An a priore distinctum?

clavatum. 230. * M. (annual club-leaved) foliis clavatis obtusis, floribus terminalibus aureis: radice annua. *Nob. in Misc. nat.* 56. *Pet. gaz. t.* 88. 7.—*Cat.* 487.

Non vidi.

Forte non a priore distinctum.

sabulosum. 231. M. (stemless) acaule, foliis oblongis planis integris (flore luteo). *Thunb. prod.* 90.

criniflorum. 232. M. (hair-petalled) acaule, foliis obovatis papulosis (corolla alba). *Thunb. prod.* 88.

57. Calyculata, Suffrutices procumbentes, foliis semiteretibus canaliculatis villosulis; calycibus corollinis 5-6-fidis, petalis nullis.—Genus proprium.

M. (villous) foliis pubescentibus connatis impunctatis, caule piloso. *Linn. sp. pl.* 692. *villosum.* 233.
M. villosum; foliis linearibus semiteretibus canaliculatis pubescentibus, caulibus pilosis prostratis. *Nob. in Syn. succ.* 254.
Obs. Suffrutex. Corolla nulla, sed *Calyx* 5-phyllus, interne coloratus corollinus, extus viridis. An Sesuvii species?

M. (six-leaved) calycibus hexaphyllis. *hexaphyllum.* 234. *
Mesem. foliis parvis teretibus, flore virenti hexapetalo. *Burm. dec. t.* 26. *f.* 2.

58. Cylindracea, Radice annua, ramis debilibus, foliis papulosis sæpe teretiusculis, oppositis, alternisque.

M. (small-flowered) foliis filiformi-semiteretibus distinctis: papulis ovatis, floribus lateralibus sessilibus; terminalibus pari foliorum cinctis. *Ait. kew. ed.* 1. *v.* 2. *p.* 179. *caducum.* 235.
Non vidi.

M. (dwarf spreading) foliis amplexicaulibus distinctis linearibus supra planis internodiis longioribus papulosis: papulis oblongis, floribus pedunculatis, calycibus quinquefidis. *Ait. kew. ed.* 1. *v.* 2. *p.* 180. *apetalum.* 236.

copticum. 237. M. (coptic) foliis papulosis semiteretibus distinctis, floribus sessilibus axillaribus, calycibus 5-fidis. *Linn. sp. pl.* 688.—*Willd. sp. pl.* 2. 1037.
Non vidi.
An satis a priore distinctum ?

nodiflorum. 238. M. (ægyptian) foliis alternis teretiusculis obtusis basi ciliatis. *Linn. sp. pl.* 687.—*Pl. grass.* 88. —*Kali Crassulæ minoris foliis. Moris. hist.* 2. *sec.* 5. *t.* 37. *f.* 7.
Obs. Nomine M. apetali, nuper communicatum ab Illust. Pr. de Salm Dyck. Optimè repræsentatur in *Pl. gr. l. c.*
Toto papulosum. *Caulis* ramosus: rami erecti, teretes demum cum caule decumbentes. *Folia* lineari-semicylindrica canaliculata obtusa viridia, fere semifiliformia, opposita alternave, remota basi ciliis albis. *Flores* in axillis foliorum breviter pedunculati s. subsessiles, basi bracteatim 1-2-foliati. *Calyx* foliolis 4 valde inæqualibus, papuloso-crystallinis foliiformibus, 2 cæteris 2-3-plo majoribus; tertio minore, quarto minimo; 3 et 4 basi membranatis. *Flores* forte nunquam aperti, *corolla* alba in calyce semper abscondita, *petalis* uniserialibus lorato-lanceolatis integris emarginatisve vix lineam longis. *Filamenta* alba petalis breviora, sed vix longitudine antherarum majuscularum lutearum erectarum. *Germen* minutum pulposum. Styli 4. Cætera non vidi.

ciliatum. 239. M. (ciliated) foliis oppositis connatis semiteretibus, stipulis membranaceis reflexis laceris ciliiformibus. *Ait. kew. ed.* 1. *v.* 2. *p.* 179.
Non vidi, nisi idem cum M. pygmæo Nobis, at vix. Potius præced nti affinius. An stipulæ

(sic dictæ) eædem cum foliis marcescenti-persistentibus?

M. (joint-flowering) foliis semiteretibus papulosis distinctis, floribus sessilibus axillaribus, calycibus 4-fidis. *Linn. sp. pl.* 688. *geniculiflorum.* 240.

Obs. Distinguitur ramis divaricatis, foliisque distantibus. Forte alia, potiusve suæ sectionis.

M. (bundled) foliis teretibus glabris, floribus terminalibus solitariis (albis), caule articulato-radicante. *Thunb. prod.* 89. *fasciculatum.* 241.

An hujus sectionis?
Non vidi.

59. Planifolia, Suffrutices humillimi grossi, vix lignosi, foliis amplexicaulibus sublanceolatis oblongisve, planis inflexo-canaliculatis minute papillosis; costatim, obtuse carinatis: floribus fere semper dichotomis: calycibus magnis 4-5-phyllis; corollis albis vel lutescentibus.

† *Pentagoni.*

M. (Sea-aster-leaved) foliis alternis lanceolatis planis impunctatis, caulibus laxis simplicibus, calycibus pentagonis. *Linn. sp. pl.* 690.—*Dill. elth. f.* 220.—*Pluk. mant.* 329. *f.* 4. *Tripolium.* 242.

Obs. Nullo affine. Non vere papulosum.

†† Calycibus subpyriformibus magnis, sine angulis, foliis oppositis summis subalternis amplexicaulibus, minute papulosis.

expansum. 243. M. (Houseleek-leaved) foliis planiusculis lanceolatis impunctatis patentibus distinctis oppositis alternisque remotis. *Linn. sp. pl.* 697.—*Dill. elth. f.* 223.—*M. tortuosum. Pl. gr.* cum icone.

varians. 244. * M. (varying-leaved) foliis lanceolatis acuminatis carinatis, subinde obtuse carnoso-triquetris canaliculatis: pedunculis crassissimis. *Nob. in Misc. nat. p.* 51.—*Pet. gaz. t.* 78. *f.* 10.

tortuosum. 245. M. (twisting Houseleek-leaved) foliis planiusculis oblongis-ovatis subpapulosis confertis connatis, calycibus triphyllis bicornibus. *Linn. sp. pl.* 697.—*Dill. elth. f.* 222.

concavum. 246. * M. (concave-leaved) foliis ovato-lanceolatis crassis excavatis, floribus terminalibus solitariis lutescentibus.
Mesem. *foliorum apicibus rubris,* flore radiato. *Burm. dec. t.* 26. *f.* 1.
An M. tortuosum supra?

pallens. 247. M. (glaucous oblong) foliis amplexicaulibus distinctis glaucis oblongo-lanceolatis inflexo-concavis obtuse carinatis: foliolis calycinis ovato-oblongis, corollâ longioribus.
M. pallens. Ait. kew. ed. 1. *v.* 2. *p.* 182.—*M. expansum. Pl. gr.* cum icone.

loratum. 248. * M. (glaucous strap-leaved) foliis loratis longis canaliculato-inflexis obtusis glaucissimis subtus convexis, foliolis calycinis oblongo-attenuatis obtusis corollam æquantibus.
Obs. Priori simillimum ut ovum ovo; at distinguitur foliis duplo angustioribus et longioribus;

nec ullo modo lanceolatis. Sequenti magis affine; at cum foliis longioribus non lividis: flore albo nec vivacissime subcarmosino, calyce latiore.

Communicavit Regius Professor Williams, ex Oxonia, A. D. 1819.

FLORET cum affinibus.

Forte non propria species.

M. (livid, strap-leaved red flowering) foliis lorato-oblongis obtusis glauco-lividis canaliculatis, subpunctato-papulosis; costatim carinatis, caulibus ramosis teretibus decumbentibus. *relaxatum.* 249.

M. relaxatum. Willd. enum. p. 36.

An prioris varietas?

OBS. *Flores* ut in M. pallente, at intensè et vivacissimè rubicundi fere subcarmosini, antemeridiani, petalis apice eroso obtusis. *Foliola calycina* subæqualia 2 minora membranacea, fere ut in M. lorato, et angustiora quam in M. pallente. *Stamina* filamentis albis brevibus, *antheris* luteis.

M. (brittle skeleton-leaved) foliis lanceolato-ellipticis papuloso-crystallinis; mortuis, nervis solum persistentibus; petalis staminibusque argenteis: caulibus ramosis procumbentibus. *Nob. in Misc. nat.* 50. *anatomicum.* 250. *

Vix M. ovatum infra.

OBS. Caules graciles teretes erecto-decumbentes.

β *fragile;* foliis supra magis concavis viridioribus s. minus canescente-papulosis: emarcidis magis perfectis et minus sceletoni instar. An M. emarcidum infra?

emarcidum. 251. M. (dry-leafy) foliis ovatis extimis emarcidis, caule erectiusculo ramoso glabro (floribus albis). *Thunb. prod.* 88.
An idem cum priore?

ovatum. 252. M. (great Chickweed-leaved) foliis ovatis planis, floribus terminalibus caule decumbente (floribus albis). *Thunb. prod.* 89.

rectum. 253. M. (upright egg-leaved) foliis connatis ovatis papulosis, ramis erectis fastigiatis (floribus albis). *M. fastigiatum. Thunb. prod.* 88. nec *Aliorum.*
E regio horto Kewense, a Capensibus seminibus ortum, A. D. 1819.
Flores non vidi.

lanceum. 254. M. (upright spear-leaved) foliis lanceolatis planis, floribus terminalibus, caule erecto subtetragono (floribus albis). *Thunb. prod.* 89.

articulatum. 255. M. (narrow spear-leaved) foliis lineari-lanceolatis, caule erectiusculo ramoso, floribus secundis (albis). *Thunb. prod.* 88.
An idem cum M. pallente. *Ait. kew.* supra? Vix.

60. CRASSULINA, Suffrutices humillimi, foliis lanceolato-linearibus farctim teretiusculis (junioribus canaliculatis) subulatis: ad lucem micantibus minutissimis atomis.

OBS. Flores albi carneive.

Crassuloides. 256. * M. (Crassula-like) foliis-lanceolato-linearibus subcanaliculatis, subtus convexis: floribus solitariis terminalibus.

E regio horto Kewense, a Capensibus seminibus ortum, A.D. 1819.

Obs. Non ultimi varietas e modo florendi. Suffrutex pygmæus 3-4-uncialis erecto-decumbens, ramis numerosis confertis erecto-effusis, sæpeque procumbentibus atque ad nodos radicantibus, valde foliosis. *Folia* subconferta crassa viridia minime papulosa. *Flores* (Augusto mense) antemeridiani. *Pedunculi* foliorum longitudine subunciales teretes ebracteati. *Calyx* 5-phyllus, foliolis 3 minoribus basi membranaceis, 2 paulo majoribus acutioribus. *Petala* subuniformia latiuscula 4 lineas longa obtusa emarginata lucidè alba basi rosea, demum pallidissimè rosea. *Fibrillæ* (i. e. petala intima staminiformia at sine antheris) paucæ erecto-recurvæ, demum revolutæ roseæ. *Antheræ* paucæ pallidè lutescentes collectæ, post anthesin erectæ distantiores, albæ. *Styli* 5 inter antheras absconditi; at post fœcundationem antherarum altitudine erecti et conspicui, subulati luteo-virescentes subramentacei. Germen 5-loculare turbiniforme.

M. (persisting-cupped) foliis confertis subpapulosis erecto-subimbricantibus subulato-farctim-semiteretibus: floribus ternato-cymosis: pedunculis clavatis: calycibus foliolis digitiformibus acutis. *Nob. in Suppl. succ.* 96. *incomptum.* 257. *

Obs. Suffrutex semipedalis et ultra dumosè ramosus ramis sæpe erectis vel in senectis decumbentibus. *Folia* pallide viridia minutè papulosa vix uncialia. *Flores* sæpe ternato- vel biternato-cymosi, rariusve solitarii, primò concinni, mox morientes, et demum incompti, e persistentibus (denique morientibus) bracteis magnis totæ cymæ; pedunculis clavatis, calycibusque intumes-

centibus, et quasi digitiferis. *Pedunculi* supra ordinarias bracteas omnino foliiformes, incrassati teretes et superne fere ficiformes post florescentiam. *Calycis* foliola 5, inæqualia, patula: omnia demum plus minus acute digitiformia erecta, præ alios persistentia tumida. *Corolla* nitidè nivea parvula calycis longitudine, diurna, petalis subæqualibus acutiusculis subintegris. *Filamenta* collecta fere in conum, nivea, extima erecto-recurva deantherata et pedetentim quasi petaliformia. *Antheræ* albæ, mox luteæ. *Pollen* luteum. *Styli* 5 erecti ramentacei lutescentes *antheras* æquantes. Vix hujus sectionis. Nullo vere affine. Ob calycem digitiformem, sectionem sequentem approximat.

61. Digitiflora, (ob foliola calycis digitiformia) Suffrutices 1-2-pedales ramosi erecti, foliis subcylindraceis, in junioribus altè sulcatis: innumeris atomis ad solem micantibus: floribus mediocribus nitidè albis stenopetalis antemeridianis ternatis vel solitariis terminalibus.

splendens. 258. M. (shining white-flowered) foliis semiteretibus impunctatis recurvis distinctis congestis, calycibus terminalibus digitiformibus. *Linn. sp. pl.* 689.—*Dill. elth. f.* 260.

β. paulo minus. *Nob. in Misc. nat.* 62.

flexuosum. 259. * M. (flexuose-leaved) foliis confertis flexuoso-recurvis perviridibus semiteretibus, laciniis calycinis digitiformibus: caulibus subflexuosis gracilibus lucidis. *Nob. in Misc. nat. p.* 61.

Obs. Flos fere ut in M. fastigiato *α*, albus, extus (præcipue ante anthesin) tincturâ rubedinis.

M. (acute-cupped) foliis confertis lineari-subulatis semiteretibus pallide viridibus altè canaliculatis, adultis expansis semiteretibus; calycibus foliolis acutis. *sulcatum.* 260. *

Obs. Vidi florentem in horto amici Dom. Burchell, a seminibus Capensibus ab ipso collectis, ortum, Sept. A.D. 1819.

Frutex 3-pedalis erectus. *Folia* congesta, uncialia subacuta.

M. fastigiato simillimum, at duplo majus; foliis non-reflexis: calyce acuto nec obtuso. *Corolla* lucide alba, extus primò substraminea.

A M. longistylo differt in foliis sulcatis &c.— M. splendentis forte varietas, at foliis longioribus sed angustioribus, acutioribus, et in juvenilibus magis sulcatis: calyce longè acutiore, petalis setaceis albidioribus, s. intus sericeo-albis, duplo angustioribus. Præterea fruticulus duplo altior. *Filamenta* vera erecta collecta, extima falsa pedetentim patula vix antherifera petaliformia. *Styli* 5, erecti *stamina* non superantes.

M. (level-topped) foliis confertis flexuoso-reflexis subulatis semiteretibus glaucescentibus; calycinis laciniis æqualibus, tribus utrinque membranaceis; caulibus gracilibus erectis, mox subdecumbentibus. *Nob. in Misc. nat. p.* 60, excluso synon. *Bradleii.* *fastigiatum.* 261. *

Obs. Corolla extus sordide fulva, intus pallidior: mox lutescens et albicans.

β reflexum; foliis flexuoso-reflexis obtusis semiteretibus glaucescentibus, calycinis laciniis

valde inæqualibus; caule erecto, ætate basi incrassato.
M. reflexum. Nob. in Misc. nat. 60.

umbelliflorum. 262. M. (round-germened) foliis distinctis teretiusculis papulosis, caule erecto, ramulis unifloris. *Willd. enum.* 534, *et Jacq.*
HABITAT C. B. S. G. H. ♄.
Flores non vidi.
Forte varietas *M. fastigiati, Nob.;* sed germine rotundiore, calyceque paulo diverso.
Non satis vidi.

longistylum. 263. M. (long-styled) caule suffruticoso ramis elongatis, foliis oppositis distinctis filiformibus, stigmatibus quinis stamina superantibus. *Pl. grass. p.* 147.
HABITAT C. B. S. G. H. ♄.
Non vidi.

pallescens. 264. * M. (pale) foliis oppositis amplexicaulibus distichis oblongo-lanceolatis, acutis obtuse carinatis; papulis minutis.
M. pallens. Jacq. hort. 3. 16. 279.—*nec Ait. kew. ed.* 1. *quare mutavi ad pallescentem.*—*M. reflexum β, floribus purpurascentibus. Nob. in Misc. nat. p.* 61.
β. flore albo. *Jacq. l. c.—cum iconibus.*

micranthon. 265. * M. (long-cupped small-flowered) foliis lanceolato-linearibus carinatis impunctatis distinctis; floribus pedunculatis; calycibus 4-fidis, foliolis duobus longissimis, aliis brevissimis. *Jacq. hort.* 3. 15. 278, *nomine M. parviflori.*

Obs. A M. parvifloro supra Nobis omnino discrepat.

Obs. Since writing the above, I have received a recent but dying sprig for this species from His Highness the Prince de Salm Dyck. It belongs to the next section, and is scarcely, if at all, distinct from M. tenue; but seems to have longer and broader leaves, and does not appear to answer to the above cited figure of Jacquin.

62. Juncea (Articulata *Salm*), Suffrutices dodrantales sub-erecti ramosi graciles virides, ramis articulatis, herbaceo-lignosis: foliis distinctis parvis linearibus subulatis tenuissimis, marcescenti-deciduis: floribus antemeridianis minutis stramineis albis roseisve; calycibus 4-fidis, foliolis duobus cæteris duplo auctim longioribus. Genus proprium?

M. (rushy) foliis subulatis semiteretibus acutis remotis, floribus terminalibus dichotomis, laciniis calycinis inæqualissimis: ramis quandoque junciformibus. *Nob. in Misc. nat. p.* 59. *junceum.* 266. *

Obs. Rami sæpe defoliati, articulatim-junciformes. *Flores* numerosissimi rosei, basi albicantes, minimi.

M. (the slender-rushy) ramis gracillimis subsecundis effusis: foliis erectis linearibus, tenuissimis. *tenue.* 267. *

E regio horto Kewense, a Capensibus seminibus ortum, A.D. 1819.

Obs. Omnium tenuissimum. *Rami* et ramuli

articulatim filiformes; *folia* vix semuncialia linearia utrinque fere attenuata; canaliculata.
Flores non vidi.

rapaceum. 268. M. *Jacq. frag.* 52. 1.
M. rapaceum. Salm. tent. bot. 24.
Obs. I have no knowledge of this plant, nor recollection of Jacquin's figure. It occurs as above cited, following *M. micranthon* and *M. junceum.*

63. Spinulifera, Suffrutices costis foliorum exsiccatorum basi persistentibus et spinulescentibus: ramulis, foliis canaliculatis viridibus pedunculisque, papuloso-crystallinis; caudice senecto basi sæpe strumoso: Corollis fulvis luteisve, antemeridianis.

spinuliferum. 269. * M. (spinulescent) foliis confertis semiteretibus canaliculatis, caudice ramisque erectis incrassatis. *Nob. in Misc. nat. p.* 57.

grossum. 270. M. (gouty) foliis linearibus teretiusculis obtusis utrinque attenuatis: caudice senecto basi strumoso: ramis effuso-decumbentibus. *Nob. in Misc. nat. p.* 56.

salmoneum. 271. * M. (trailing, salmon-flowered) ramis subfiliformibus debilibus elongatis prostratis, radicibus senectis superne strumosis: foliis linearibus sulcatis internodio longioribus, sordide papulosis.
Communicavit amicus Dom. Burchell A.D. 1819, a seminibus Capensibus ab ipso collectis ortum.
Obs. Caules ramive senecti prostrati pendulive

2-3-pedales. *Folia* (aëre aperto) utrinque attenuata pallide s. læte viridia sordidè papulosa fere semper canaliculata. *Flores* trichotomi mediocres vel parvuli, primo (extus præcipue) fulvi, sive salmonis carnis colore, basi lutei; mox pallidiores roseive: denique extus rosei, intus plus minus albicantes. *Pedunculi* clavati, uti calyces valde papuloso-nitentes. *Calyx* 5-phyllus ut in affinibus. *Stamina* erecta alba, longitudine varia, luteis antheris pollineve. *Styli* 5 erecti albo-lutescentes læves. *Germen* supra calycem parum elevatum, convexulum 5-loculare.

M. (trailing blush-flowered) foliis linearibus semiteretibus, nitide papulosis: caulibus procumbenti-prostratis, filiformibus. *Nob. in Misc. nat. p.* 57. — *canaliculatum.* 272. *

Obs. Corolla parvula dilute rosea rubicunda. Caules senecti semipedales. Priori simillimum.

M. (green-flowered) foliis semiteretibus papuloso-pilosis, calycibus hirsutis, caudice incrassato: ramis diffusis, nodulosis. — *viridiflorum.* 273.

M. viridiflorum. Ait. kew. ed. 1. *v.* 2. *p.* 196.

Obs. Ab omnibus differt, petalis angustis viridibus!

M. (slender-flowered) foliis semiteretibus obtusis canaliculatis patentibus, crystallino-papulosis: ramis diffusis debilibus cinereis. — *tenuiflorum.* 274.

M. tenuiflorum. Jacq. frag. 52. *f.* 3.

Obs. Flores rubicundi. Non vidi. A Pr. de Salm Dyck.

M. (shrubby, crystalline) fere toto pulcherrime papulosum; foliis semiteretibus: ramis erecto- — *nitidum.* 275. *

effusis nodosis gracilibus : floribus parvis dichotomis luteis. *Nob. in Misc. nat. p.* 57. — *M. brachiatum. Pl. grass. nec Aliorum.*

64. TRICHOTOMA, Suffrutices suberecti ramosi, foliis sæpe subcylindraceis, calyce 5-fido : floribus ternatim 2-3-chotomis, plus minus luteis fulvis, vel rubicundis.

OBS. This Section is difficult to increase by cuttings.

trichotomum. 276. M. (trichotomous) foliis trigonis, caule stricto ramoso angulato, floribus sessilibus (flore rubro). *Thunb. prod.* 89.
Non vidi.

decussatum. 277. M. (crossed) foliis linearibus subpapillosis, floribus terminalibus pedunculatis (albis), caule fruticoso trichotomo. *Thunb. prod.* 88.
An eadem cum sequente ?
Non vidi.

brachiatum. 278. M (three-forked) caulibus foliisque cylindricis papulosis, ramis trichotomis (flore luteo). *Ait. kew. ed.* 1. *v.* 2. *p.* 119.

testaceum. 279. * M. (tile-coloured) foliis semiteretibus subtriquetris glaucescentibus, floribus trichotomis testaceis : caule erecto fruticoso. *Nob. in Suppl. pl. succ.* 97.

OBS. Caulis senectus 2-3-pedalis ramosus erectus. *Flores* umbellato-trichotomi terminales parvi testaceo-crocei pedunculati, *Petalis* uniserialibus. *Calyx* brevis, foliolis subæqualibus. *Stamina* et fibrillæ (filamenta imperfecta) in conum niveum nitentem collectæ.

M. (tuberous, shrubby) foliis subtriquetro-compressis minute papulosis supernè recurvantibus, radice senectâ ingenti-tuberosâ. *Linn. sp. pl.* 1. 693.—*Dill. elth. f.* 264. ***tuberosum.*** 280.

β minus; foliis paulo minoribus.

65. Noctiflora, Suffrutices graciles subdefoliatis ramis elongatis erectis simplicioribus duris lævigatis teretibus: foliis distinctis valde deciduis cylindraceis glaucis et fere farinoso-albis remotis impunctatis; floribus sæpe ternis terminalibus; calycibus 4-fidis; corollis mediocribus albis, extus roseis, fulvis vel stramineis, vespere nocteque solum expansis odoratissimis moschatis: radicibus senectis carnoso-incrassatis, fibris paucis. Genus proprium? Antiquorum Botanicorum Nycterianthemum.

M. (lesser rosy night-flowering) foliis subremotis obsolete semicylindricis glaucis, floribus biternato-cymosis intus albis; extus apice luteis phœniceisve, cortice albo. ***noctiflorum.*** 281.

M. noctiflorum. Linn. sp. pl. 689.

α phœniceum (deep rosy-flowered); M. flore intus albo extus phœniceo odoratissimo. *Dill. elth. f.* 262.—*Pl. grass. t.* 10.—*Mesem.* 4. *Mill. dic. ed.* 7.

β stramineum (lesser, straw night flowered); M. flore intus candido, extus stramineo. *Dill. elth. f.* 262.—*M. noctiflorum β. Linn. sp. pl.* 689.—*Mesem. species* 5. *Mill. dic. ed.* 7.

Obs. This is the original *Mesem. fl. extus stra-*

mineo, and should therefore, whether considered as a variety or a species, retain the name of *stramineum*, erroneously often applied to the next species. Both Miller and Dillenius consider the present var. *stramineum* as a species, and it may be such, having larger flowers, and an obovate germen, while that of the var. *phœniceum* is pyriform. Dillenius's figure of *stramineum* is from a young plant, and therefore more robust, and less branched than usual.

γ *elatum* (tall rosy night-flowering); foliis longioribus semierectis triquetro-cylindricis demum reflexis farinoso-albis remotis junioribus canaliculatis; ramis elatis simplicioribus; cortice lævigato albo: floribus ternatis.

E regio horto Kewense, a Capensibus seminibus ortum, A.D. 1819.

Obs. Rami (in seminalibus plantis) strictissimi virgati usque ad 3 pedes et ultra, tunc florentes; ante florescentiam simplicissimi. *Flores* (Augusto) terminales sub-3 s. 5, di-trichotomi nocturni, extus saturate rosei phœniceive, intus albi. Prioribus elatius, minus ramosum, cortice foliisque majoribus pallidioribus.

A sequente specie dignoscitur foliis erecto-reflexis etiam majoribus, nec horizontalibus, petalorumque colore.

Forte propria species.

fulvum. M. (grey-barked, tawny night-flowering) foliis remotis subcylindricis glaucescentibus, exacte semierectis: floribus ternatis fulvis intus albis: cortice cinereo-fusco. *Nob. in Misc. nat.* 63, excluso synonymo Dilleniano et Linn.
282.
*

Obs. Priore majus, elatius, minus ramosum. *Flores*

pauciores, minus cymoso-dichotomi. *Radices* senectæ carnosæ, et fere fusiformes. *Cortex* subjunioris cinereus. *Germina* turbiniformia.

Obs. Printed names of plants should seldom be changed without apology, and never without a good reason. And perhaps, the only allowable reasons are, when the name is erroneous through preoccupation; or where it misleads through some variance with truth. Such, for instance, as the calling a plant American, which is not indigenous to America; an annual by a perennial name; or a flower yellow, when it is not of that colour. And hence the change of the present fulvous flowered species (heretofore called by us *stramineum*) to fulvum, is allowable. The error arose in *Syn. succ. p.* 261, on our elevating two varieties, given as one species, into two species; calling the horizontal-leaved straw-flowered one, *horizontale;* and leaving the other, though a fulvous-flowered one, in possession of the specific name of *stramineum;* which (belonging to another) was wrong; and its rectification in the present place should be considered as an improvement.

M. (clubbed night-flowering) foliis semiteretibus, pedunculis terminalibus aggregatis clavatis, cymosis. *defoliatum.* 283. *

M. clavatum; foliis subteretibus impunctatis distinctis, pedunculis clavatis, calycibus quadrifidis. *Jacq. hort. schœnb. t.* 108.—*M. defoliatum. Nob. in Misc. nat.* 84.

M. (spread-leaved straw night-flowering) foliis remotis subcylindricis glaucis exactè horizontalibus: floribus ternatis stramineis intus albis. *Nob. in Syn. succ. p.* 261. *horizontale.* 284. *

An varietas M. defoliati supra? An idem?
Exempla parva M. defoliati mortua (ob longum iter) solum vidi, a Principe de Salm Dyck, et amico V. Marum, Æquite.

66. ASPERICAULIA, Suffrutices vix sesquipedales ramosi, ramulis filiformibus scabris: foliis distinctis, remotis papuloso-micantibus; floribus antemeridianis aurantiis rubicundisve.—Hæ plantæ ob micantia folia, coruscantem cohortem efficiunt.

† Floribus magnis coccineo-aurantiis flavisve.

specio-sum. 285. * M. (glittering orange) foliis semicylindricis subulato-subacutis incurvis submicantibus: calycinis laciniis petalisque obtusis: corollis subinfundibuliformibus.—*Nob. in Misc. nat.* 98.

OBS. Corolla magna atro-coccinea, basi viridis: minus expansa ad solem, potiusve basi magis subcampanulata quam in aliis.

micans. 286. M. (glittering dark-orange) foliis semicylindricis obtusiusculis subrecurvis valde micantibus, calycinis laciniis petalisque subacutis.

M. micans. Linn. sp. pl. 696. *Dill. elth. f.* 282.

OBS. Corolla magna, basi purpurea intus saturatè coccinea, filamentis atris extus pallidioribus. *Folia* valde scintillantia.

β. paulo minus. *Nob. in Misc. nat.* 98.

macula-tum. 287. * M. (lesser glittering) foliis expansis remotis obtusis compresso-semicylindris; caulibus exasperatim maculatis erectis. *Nob. in Misc. nat.* 98.

†† Floribus parvis rubicundis.

M. (small glittering, yellow) foliis semiteretibus *flavum.*
teretibusve utrinque sub-attenuatis micantibus, 288.
incurvo-erectis varieve flexis; ramis tenuissime *
filiformibus: floribus flavis.
Viget in regio horto Kewense e C. B. S. A.D. 1820.
FLORET Aug. G. H. ♄.
OBS. Suffrutex suberectus ramosus semi-pedalis, ramis gracillimis crebrè punctato-scabris. *Folia* senecta sæpius teretiuscula, supra rarius planiuscula, ad lucem papuloso-scintillantia. *Flores* solitarii terminales. *Pedunculi* filiformes bracteas duas exacte foliiformes in medio gerentes. *Calyx* obtusè et subæqualiter 5-fidus. *Corolla* A. M. expansa parvula, semunciam lata, *petalis* pauculis lucidis latis flavis aureisve, extus supernè sæpe rubicundis. *Stamina* filamenta brevia alba erecta. *Antheræ* parvæ pallidæ s. lutescentes *polline* fere concolores. *Stigmata* 5 parva recondita inter stamina, demum patula, (ad lentem) subulata ramentacea luteo-virescentia.
OBS. M. specioso proximum, sed in omnibus 3-4-plo minus. Simulat etiam M. micantem, at minus micans, et fere omnino absque filamentis petalinis atris.

M. (bright afternoon-flowering) foliis distantibus *obli-*
cylindraceis obtusis parvis papuloso-nitentibus, *quum.*
uno singulo pari deflexo, altero adscendente, ra- 289.
mis filiformibus duris asperiusculis suberectis. *
Fruticulus pedalis e regio horto Kewense, A.D. 1819, a Capensibus seminibus ortum.

Flores parvi alte rubicundi solitarii terminales meridiani.
β. ramis præcipue inferioribus magis patentibus.
Vidi apud Kew A. D. 1820.

parvifolium. 290. * M. (small triquetrous glittering) foliis graniformibus expansis obtusè triquetris papulosis submicantibus: ramis subconfertis filiformibus asperis duris suberectis.

Vigebat in regio horto Kewense A. D. 1820, a Capensibus seminibus ortum.

Obs. Fruticulus subdensè ramosus (secundo anno) vix semipedalis, suberectus. *Rami* filiformes rufescentes asperiusculi ut in priore, numerosi. *Folia* (aëre aperto) patula, obtusula, brevia, crassa, subcompresso-triquetra, aliquantillum incurvula indeque subcymbiformia, potiusve formâ Tritici seminis at (in senectis) duplo minora; ad solem obsoletè papuloso-micantia, præcipue in viridario, ibique longiora. *Flores* (Junio) terminales in ramulis superioribus et (si benè cultum) numerosi subcymosi, *pedunculis* subsemuncialibus filiformibus calycem versus bracteis duabus omnino foliiformibus, instructis. *Calyx* 5-fidus, foliolis subæqualibus subobtusis foliiformibus, &c. ut in affinibus. *Corolla* saturanter purpurea fere ut in M. hispido, at 2-3-plo minor, diurna, petalis subuniserialibus acutis integris angustis. *Stamina* filamentis erectis distinctis, purpureo-roseis, non confertis vel convergentibus, antheris parvis albis, polline pallido, vix lutescente. *Germen* micans pyriforme (ad lentem) semisuperum 5-loculare supernè costatim 5-angulare, *stylis* 5 erectis ovato-lanceolatis ramentaceis viridibus.

Obs. Folia in juvenili planta 3-plo longiora quam in senectis, ut in plurimis.

M. (small short-leaved glittering) foliis cylindraceis obtusissimis patentibus; brevibus; ramis numerosis, diffusis filiformibus. *brevifolium.* 291.
M. brevifolium. Ait. kew. ed. 1. *v.* 2. *p.* 188.

M. (small globular-leaved) foliis expansis brevissimis vel subgloboso-cylindraceis; ramis numerosis filiformibus divaricatis subdecumbentibus. *subglobosum.* 292. *
M. capillare; foliis subglobosis, caule rigido ramoso, ramulis filiformibus, floribus pedunculatis (rubris). *Thunb. prod.* 89. *nec Aliorum.*—*M. subglobosum. Nob. in Syn. succ.* 273.

M. (sessile) foliis trigono-globosis glabris, caule erecto tereti ramoso; floribus sessilibus (rubris). *Thunb. prod.* 89. *sessile.* 293.
An hujus sectionis? An idem cum M. cymbiforme supra, vel priore? Vix.
Non vidi.

M. (powdered) foliis cylindrico-triquetris obtusis, punctis albis, pulverulentibus scabris; calyce sexfido, petalis rubicundis. *Nob. in Misc. nat. p.* 99. *pulverulentum.* 294. *
Florem unum, facie M. barbati, solum vidi.

M. (pruinose) foliis trigonis papulosis, caule decumbente frutescente (floribus luteis). *Thunb. prod.* 90. *pruinosum.* 295.
Non vidi. Vix præcedentis varietas.

67. Hispicaulia, Suffrutices dumosi subdodrantales, caulibus pedunculis-

que hispidis: floribus antemeridianis rubicundis albisve.—Hæce plantæ rursum scintillantes ad solem, splendentem familiam constituunt.

hispidum. 296. M. (hispid-stalked) foliis cylindricis obtusissimis calyceque glabro obconico viridibus papuloso-micantibus: staminibus pistillo longioribus.

M. hispidum. Linn. sp. pl. 691.

α Dillenii (the bushy); M. papulosum micans, flore saturate purpureo. *Dill. elth. f.* 278.

Obs. Dumosum; ramis subconfertis. *Folia* læte viridia. *Flores* in ambabus varietatibus saturate rubicundi.

β platypetalum (tall hispid-stemmed) ramis simplicioribus distantioribus elatioribus: foliis remotioribus: petalis saturanter purpureis paucioribus latioribus.

Fortasse propria species.

Communicavit A. D. 1820 amicus Dom. Burchell, qui in Africa (C. B. S.) legit spontaneum. G. H. ♄.

Cum priore floret.

hirtellum. 297. * M. (large-flowered, hispid) foliis confertis cylindricis obtusissimis crystallino-papulosis; calyce turbinato papulose piloso: staminibus longitudine pistillorum. *Nob. in Misc. nat. p.* 102.

Obs. Quam affinibus corolla plus duplo major, pallescens, at hilariter rubicunda, basi læte alba, speciosa.

candens. 298. * M. (pale, icy, trailing hispid) foliis cylindraceis incurvis crystallino-canescentibus obtusis scintillantibus: ramis longis debilibus procumbentibus prostratisve.

M. hirtellum. Cat. hort. dyck. A.D. 1820. *p.* 24, *nec Nob.*

Obs. Priori valde affine, at ramis 3-plo plusve longioribus rectis, *foliis* minoribus magis cano-coruscantibus.

Flores non vidi.

Communicavit illustr. Pr. de Salm Dyck A. D. 1820 et 1821.

M. (crowded-flowered, hispid) foliis subcylindraceis subincurvis papulosis obtusis; calycibus hemisphæricis papulosè pilosis confertis: staminibus pistillis brevioribus: ramis numerosissimis patulis. *Nob. in Misc. nat. p.* 100, exclusis synonymis. *floribundum.* 299. *

M. (twisted hairy-stemmed) foliis subcylindraceis incurvis canescente-viridibus papulosis obtusis: calycibus hemisphæricis papuloso-pilosulis numerosis: staminibus pistillis longioribus: ramis tortuosis subdecumbentibus. *torquatum.* 300. *

M. pilosum micans flore purpureo pallidiore. Dill. elth. f. 279. 280. — *M. floribundum. Cat. hort. dyck. A.D.* 1820, *p.* 24, *nec Nob.*

Obs. Rami longiores quam in priore, magisque procumbentes, senecti sæpe valde tortuosi sive torquati, graciles. *Folia* duplo graciliora, magis incurva, minus viridia. *Flores* pauciores distantiores.

Communicavit illustr. Pr. de Salm Dyck A. D. 1820.

M. (long-cupped, hispid) foliis cylindricis tenuioribus; foliolis calycinis duobus foliaceis cæteris productim duplo longioribus. *calycinum.* 301. *

Vigebat in regio horto Kewense, e seminibus Capensibus ortum, A. D. 1819.

Obs. *Rami* semipedales effusi graciles hispidi pilis horizontalibus validis. *Folia* cylindracea fere filiformia papuloso-nitentia obtusa, duplo graciliora uti rami, quam in priore et pauciora remotioraque. *Flores* (in Jul. Aug. Sept.) antemeridiani albi. *Pedunculi* solitarii terminales pilis albis, s. setis horizontalibus, vel deflectentibus hispidi, apice cum calyce papuloso crystallini. *Calyx* 5-fidus laciniis obtusis foliiformibus, 2 brevibus, tertia longiore, 4 et 5, 2-3-plo cæteris longioribus. *Corolla* parvula alba, petalis sæpe emarginatis vix longitudine calycis foliorum elongatorum: interiora petala pauca, sensim sensimque minora. *Filamenta* extima erecto-recurva numerosa alba, petalis triplo breviora, antheris albis impotentibus absque polline: intima lutescentia erecta, *antheris* parvis luteis, polline luteo. *Germen* fere inferum. *Styli* 5, erecti minuti acuminati, antheris (intimis exceptis) humiliores, post anthesin subrecurvantes.

striatum. 302. * M. (striped-flowered bristly) erectum: foliis subulatis semicylindricis, calycibus lanuginosis: staminibus collectis longitudine pistillorum: capsulis apice altè angulatis.

α *roseum;* petalis albo-roseis costa rubra.

M. striatum. Nob. in Misc. nat. 108.—*M. purpureum micans, flore purpureo striato. Dill. elth. f.* 281.

β *pallens;* petalis albis, costa basi rubra: morientibus parum roseis. *Plant. grass. t.* 132.

attenuatum. 303. * M. (slender hispid) gracile: foliis farctim semicylindris obtusis subteretibusve: calycibus basi hir-

sutis; pedunculis longis, ramulisque decumbentibus, filiformibus.

Florebat in regio horto Kewense Jul. 1821, a Capensibus seminibus nuperrime ortum.

Obs. M. striato proximum, at omni parte 3-plo minus, decumbens, valde gracile. *Pedunculi* longiores læte rosei. *Calycis* foliola subrecurva dum flores antemeridiani aperti sunt. *Petala* innupta alba, costâ apiceve læte roseâ, inde circulus per florem roseus, pulcher transit, Bellidis instar, exactè, concinnè.

M. (hispid-leaved, bristle-stemmed) ramis foliis pedunculis calycibusque hispidis. *Nob. in Suppl. pl. succ. p.* 94. *hispifolium.* 304. *

Obs. Dignoscitur primo intuitu, foliis uti ramis hispide-pilosis; capsulis minus apice angulatis.

Cæteris cum M. striato convenit.

Variat

α fastigiatum (pale-flowering level-topped); floribus numerosis formosis fastigiatis, petalis albis costa rubra, senectis roseis, foliis pilosioribus: capsulis minoribus.

β roseum (rosy-flowered); majus; floribus roseis, costa rubra, non fastigiatis; foliis minus hispidis: capsulis majoribus.

68. Echinata, Suffrutices subsemipedales valde ramosi; foliis undique plus minus hispidis, caulibus sæpius nudis.

M. (Hedgehog) foliis oblongo-ovatis farctim subtriquetris gibbis: calycinis laciniis præinæqualibus foliiformibus ramentaceo-hispidis longitudine petalorum. *Ait. kew. ed.* 1. *v.* 2. *p.* 194. *echinatum.* 305.

α. flore luteo.
β. flore albo.

strumosum. 306. M. (tuberous, Hedgehog) foliis confertis depresso-cylindraceis undique hispidis; radice senecto tuberoso.

E regio horto Kewense, ex C. B. S., A. D. 1820.

Radices senectæ semimagnitudine pugni. *Rami* e summo tuberis erecto-effusi decumbentes breves. *Folia* fere ut in M. echinato at longè angustiora minus gibba, pilis mollioribus numerosioribus. *Flores* (1 solum examinavi Augusto 1820) expansi A. M. terminales fere solitarii, pedunculo brevi piloso, cum calyce pilis respicientibus. *Calyx* 5-fidus, laciniis brevibus subæqualibus ut in plurimis. *Corolla* pallide straminea sive albicans. Cætera non examinavi.

β. foliis saturatioribus paulo minoribus.

69. Barbata, Suffrutices 2-11-entales plusve, foliis nudis apice radiatim stellato-barbatis setis pallidis.

barbatum. 307. M. (shrubby trailing-bearded) procumbens: foliis remotis suboblongis exactè semierectis, supra planis crassis papulosis, apice sub-5-radiatis, ramulis senectis prælongis gracilibus nudis: calyce 5-fido, laciniis perinæqualibus.

M. barbatum. Linn. sp. pl. 691.—*Dill. elth. f.* 234.

stelligerum. 308. * M. (upright bushy, bearded) erecto-decumbens, foliis remotiusculis suboblongis patenti-horizontalibus, supra planiusculis crassis papulosis, apice subsexradiatis, ramis longis gracilibus nudis;

calyce 5-fido laciniis æquali longitudine. *Nob. in Syn. succ.* 278.—*Bot. magaz. t.* 70.
Obs. Priore ramosius, foliis magis expansis. Forte mera varietas, at e seminibus constans.

M. (small, bearded) foliis (ramulisque brevibus grossis) cæspitosis canis crassis semiteretibus, papuloso-scabris, apice multiradiatis, basi ciliatis: pedunculis calycibusque 6-8-fidis hirsutis. *stellatum.* 309. *
M. stellatum. Pl. grass. 29, cum icone.—*M. hirsutum. Nob. in Misc. nat.* 105.—*M. barbatum β. Linn. sp. pl.* 691.—*Dill. elth. f.* 235.
Obs. As this plant is the real *M. stellatum* of Decandolle and others, and is well figured in *Pl. gr.*, I have relinquished the name of *hirsutum,* which I had formerly applied to it.

M. (dwarf, bearded) densissime cespitosum: foliis semiteretibus papuloso-scabris, apice multiradiatis, basi subciliatis virescentibus: pedunculis calycibusque 6-fidis hirsutissimis: caudice senecto præcrasso ramuloso brevissimo. *Nob. in Misc. nat.* 105.—*M. barbatum γ. Linn. sp. pl.* 691.—*Dill. elth. f.* 236, at sine rarissimis floribus. *densum.* 310. *

SPECIES INCERTAE.

1. M. elegans. *Cat. hort. Belvidere.*
2. M. serratifolium. *Ibid.* (Forte M. serrulatum *Nob.*)
3. M. blandum. *W.*
4. M. cornutum. *W.*
5. M. Milleri. *W. enum. suppl.* 37.
6. M. suaveolens. *Jacq. frag.* 99. 1.
7. M. multiradiatum. *Jacq. frag.* 53. 1. Duas

ultimas figuras insufficienter vidi. Prima est affinis M. papuloso; alter forte M. *incurvo*, Nobis.

HYMENOGYNE. Mesembryanthemum *Linn. &c.*

Styli sub-12 confluenter adnati internè ad tubum delicatulum infundibuliformem: stigmatibus brevibus liberis, tubo humilioribus. *Capsula* 1-locularis polysperma (maturam solum examinavi). *Semina* magna fusca rotunda plana s. hinc convexula nuda nitentia, illinc concava ramentacea: membranâ magnâ marginata, s. alata.

Genus præsingulare distinctissimum: sectionem novam in FICOIDÆIS propter capsulam 1-locularem formavit.

Herba e C.B S. glabra nuda formâ fere omnino Mesem. Helianthoidis, *Ait. nec Decand.* radice annua, equitantibus petiolis.

glabra. H. (smooth).
1. *Mesembr. glabrum. Ait. kew. ed.* 1. et 2.

Herba 6-9-uncialis debilis parum ramosa. *Rami* oppositi teretes debiles, s. decumbentes virides, vel superne rufescentes. *Folia* longè petiolata spathulato-lanceolata viridià sine punctis papulisve, basi utrinque ramulos dilatatim subequitantia! *Pedunculi* foliorum longitudine plusve et medio, e bracteis omnino foliiformibus, sæpe ramosi, graciles teretes. *Calyx* hemisphæricus foliolis longis inæqualibus linearibus acutis pla-

niusculis, potiusve utrinque convexiusculis, basi dilatatis, minoribus, tribus plus minus membranaceis, eorum minimo magis membranato. *Corolla* semuncialis diurna, petalis uniformibus numerosis lucidissimè stramineis ipsa basi rufescentibus, apice acuto subintegro. Intra veros petalos circulus densus e fibrillis staminiformibus convergentim erecto-recurvis rufo-croceis, sine antheris, antherisque duplo humilioribus. Intra circulum *Filamenta* vera, valida, plano-linearia erecta crocea, apicibus saturatioribus, *antheris* parvis fuscis, polline pallido. *Styli* sub-12 longi, sed omnino confluentèr adnati internè ad tubum viridem cylindraceum (apice purpureo patulo subcrenulato) staminibus longe humiliorem. *Stigmata* sub-12 brevia (lente) ramentacea, supernè solum tubó libera eoque longe humiliora. *Germen* quasi sub-12-loculare, calycis figurâ, foliaque calycina quasi gerens; at capsula demum unilocularis est.

SYNGENESIA. Polygamia Æqualis.

KLEINIA. *Linn. in Hort. cliff.—Nob. in Syn. succ.* 312. *Cacalia Aliorum.*

K. (dagger-leaved) foliis decussatis incurvo-erectis sesqui-semiteretibus subulatis glaucis striatulis: senectis valde elongatis. *longifolia.* 1.

Habitat .... G. H. ♄. *

Obs. Conspicua species, dodrantalibus omnium

longioribus foliis, paginis interioribus aliquantillum planato-depressis.

Nuperrime communicavit illustr. Pr. de Salm Dyck, nomine Cacaliæ pugioniformis, et diffidenter aptiorem fortasse proposui.

SYNGENESIA.

Polygamia Necessaria.

OTHONNA. *Linn.* &c.

Recept. nudum. *Pappus* pilosus. *Calyx* 1-phyllus multifidus.

pinnata. 1. O. (wing-leaved) foliis carnosis glaucis pinnatifidis: pinnis subspathulatis integerrimis decurrentibus: radice tuberosa. *Willd. sp. pl.* 3. 2373.—*Bot. mag.* 768.
Habitat C. B. S.
Cult. 1759. G. H. ♃.

pec a-tin 2. O. (hoary, or Wormwood-leaved) foliis carnosulis pinnatifidis tomentosis: laciniis linearibus margine exteriore subdentatis, caule fruticoso. *Willd. sp. pl.* 3. 2374.—*Bot. mag.* 306.
Habitat C. B. S.
Cult. 1731.
Floret Mai.—Jun. G. H. ♄.

O. (Buck's-horn-leaved) foliis infimis lanceolatis integerrimis carnosulis glaucis; superioribus sinuato-dentatis. *Willd. sp. pl.* 3. 2375.— *Jacobea &c. Comm. hort.* 2. *t.* 70. *Coronopifolia.* 3.

HABITAT C. B. S.
CULT. 1731.
FLORET Jul.—Sept. G. H. ♄.

O. (Stock-leaved) foliis lanceolatis trinerviis integerrimis carnosulis glaucis : caule suffruticoso repente. *Cheirifolia.* 4.

HABITAT C. B. S.
CULT. 1752.
FLORET Apr.—Jun. G. H. ♄.

O. (thick-leaved) foliis lanceolatis integerrimis crassis subcarnosis, caule erecto. *Willd. sp. pl.* 3. 2376. — *Mill. icones* 2. *p.* 164. *t.* 245. *f.* 2. *crassifolia.* 5.

HABITAT C. B. S.
CULT. ante 1810.
FLORET Sept.—Oct. G. H. ♄.

O. (tooth-leaved) foliis oblongis carnosulis glaucis glabris denticulatis, basi attenuatis amplexicaulibus; floribus paniculatis. *Willd. sp. pl.* 3. 2376. *denticulata.* 6.

HABITAT C. B. S.
INTROD. 1774.
FLORET Apr.—Mai. G. H. ♄.

O. (bulbous) foliis ovatis subdentatis, pedunculis unifloris longissimis; radice tuberosa. *Willd. sp. pl.* 3. 2377. *bulbosa.* 7.

HABITAT C. B. S.

o 2

INTROD. 1774.
FLORET Mai.—Jun. D. S. ♃.

perfoliata. 8. O. (perfoliate) foliis cordatis carnosulis amplexicaulibus glaucis, caulibus herbaceis, pedunculis unifloris. *Willd. sp. pl.* 3. 2072.—*Amplexicaulis. Bot. mag.* 1312, exclus. synon.

Cacalioides. 9. O. (fleshy obovate-leaved) carnosa nuda lævis palmaris, foliis fasciculatis obovatis sessilibus, pedunculis unifloris. *Willd. sp. pl.* 3. 2382.
HABITAT C. B. S.
INTROD. 1774.
FLORET Mai.—Nov. G. H. ♃.

filicaulis. 10. O. (Yam-rooted) foliis integerrimis: radicalibus cordatis; caulinis ovato-lanceolatis basi cordatis amplexicaulibus, caule flaccido filiformi ramoso. *Willd. sp. pl.* 3. 2377.—*Jacq. hort. schœnbr. t.* 241.
HABITAT C. B. S.
INTROD. 1791.
FLORET Apr.—Mai. G. H. ♃.

MONŒCIA. POLYGYNIA.

BEGONIA. *Linn. &c.*

dubia. 1. B. (dubious.) *Nob. in Suppl. p.* 101.
OBS. I believe this may be the same as the *B. pauciflora* of *Bot. reg.* 471, and that *B. patula*, *Nob. in Suppl. succ.*, is a different plant. But

for the present article *pauciflora* is not a very applicable name.

B. (the polished) foliis semicordatis duplicato-dentatis strigose ciliatis supra hispidulis, caulibusque polite lucentibus: capsulis trilocularibus, alis rotundatis subinæqualibus. *lucida.* 2. *

Exstat in hort. Chels. ex Insula Trinitate.

Herba annua, tota (corolla strigisque paucis exceptis) lævigatè lucens. *Caules* succulenti erecti at debiles 2-pedales parum ramosi. *Rami* læves suberecti teretes rubentes striatuli, subtumentibus nodis; supernè vix crassitie coracis pennæ. *Folia* distantia, supra saturatè viridia pracè strigosa at politè nitentia; *subtus* nuda, pallescentia e punctulis (ope lentis) creberrimis regularibus rotundis, ad lucem albicante-nitentibus. *Flores* fere ut in figura B. humilis Dryand. *Linn. trans. v.* 1. *t.* 15, at forte pedunculis longioribus; perfectos non examinavi. Affinis maximè B. humili.

B. (Elm-leaved) erecta: foliis utrinque hispidis inæqualiter oblongis duplicato-dentatis; capsula ala maxima acutangula, reliquis obtusangulis. *Pers. syn.* 2. 564. *Ulmifolia.* 3.

Habitat in Americ. merid. St. ♄.

Vigebat in hort. Chels. et apud Dom. Loddiges A. D. 1820.

B. (the silver-spotted) foliis semicordatis viridibus, maculis sparsis rotundis nitide argenteis pulcherrimis: subtus sanguineis immaculatis. *argyrostigma.* 4. *

Viget sub hoc nomine apud Dom. Loddiges. St. ♃.

Vere eximia herba, Begoniarum formosissima, e

maculis quasi metallicis coruscantibus ; sanguineoque colore.

picta. 5. * B. (hairy silver-spotted) foliis hirtis imis inæqualiter, cæteris pedetentim magis toto cordatis, punctis argenteis coruscantibus.

OBS. E Nepaul. Viget in hort. Chels. et etiam apud Dom. Loddiges (sub hoc nomine) radice tuberose granulata, si eadem ; at unum parvum folium e radice quiescente solum vidi. In hort. Chels. fere 3-uncialis est, summis foliis fere exactè cordatis, duplicato-dentatis, at infantilis planta solum.

ADDITAMENTA QUÆDAM.

PIPER. *Linn. &c.*

concinnum. 1. * P. (small heart-leaved) nudum ; læve : foliis alternis patulo-pendulis cordatis obtusis 5-nerviis lucidis, petiolis decurrentulis internodio 2-plo, laminis triplo brevioribus : ramulis gracilibus flexuosis.

HABITAT in Jamaica.

INTROD. a Dom. Loddiges 1821. St. ♄.

Flores non vidi.

P. pellucido simile, at non annuum teneris foliis, caule subrecto ; sed fruticulus 6-unc. ramulis (in petiolorum lapsorum locis) noduloso-cicatrizatis, foliis crassis uncialibus.

CEROPEGIA. *Linn. &c.*

C.? (straddling, Pod-leaved) ramis effuse dichotomis decumbentibus: foliis lanceolato-oblongis leguminiformibus torulosis. *torulosa.* 1. *

Vigebat in regio horto Kewense A. D. 1821.
A C. B. S.

Obs. Suffrutex succulentus Piperis facie, valde ramosus. *Rami* dodrantales subdivaricati, graciles erecto-decumbentes teretes. *Folia* opposita expansa unciam longa, utrinque farctim convexa subbullulata, sordide viridia internodiis breviora, petiolis lineam longis filiformibus.
Flores non vidi.

STAPELIA. *Linn. &c.*

Obs. Stapelia crassa. *Donn. hort. cant. ed.* 6. *p.* 67, est varietas crassior Huerniæ reticulatæ *Nob. in Syn. succ.* 28.
Ab ipso Donnio accepi A.D. 1812.

During the printing of the preceding pages, the following articles have occurred, which may be worthy of being briefly noticed.

CRASSULA.

C. (latchet-leaved) foliis liguliformibus albo-dense-cartilagineo-ciliatis obtusis concaviusculis, sudtus convexulis: cauliculo suffrutescente. *ligulifolia.* 1. *

Habitat C. B. S.

Viget in regio horto Kewense. Cauliculi (primi anni a semine) 3-4-unciales imbricatim decussate foliosi, exacte ut in C. ciliari; a qua differt solum in foliis duplo longioribus, sed an-

gustioribus etiam duplo: sive 2 uncias longis, 3-4 lineas latis. Cilia fere lineam longa recta obtusa contigua nivea et concinnè parallela.

Nondum floruit. G. H. ♄.

concinna. C. (small neat ciliate) foliis obovatis concinnè niveo-altè-ciliatis.

1. HABITAT C. B. S. Cum priore e semine.

* viget in regio horto Kewense. G. H. ♄.

Plantam primi anni 3-4-entalem solum vidi. C. ciliatæ simillima, at minor, foliis latioribus ratione longitudinis.

Noudum floruit.

OBS. The beautifully fringed imbricating leaves of these Crassulæ have been aptly compared by a lady, to a Lobster's tail, which indeed they resemble considerably. The fringes are neat objects through a pocket lens, and almost each hair appears to arise from a small bulbous base, and to be accompanied with a glandular pellucid dot of a different nature, within the very margin of the leaf, as in the Genera above called *Kalosanthes* and *Curtogyne*: but the cilia in the former genus are very different to a botanic eye; being merely beautiful crystalline globes, analogous to the small bulbous bases above mentioned, but far more crystalline: in the latter genus they are reniform: and by those shapes alone we can (without flowers) safely refer any new species to their proper places, which otherwise in leaf, are extremely similar. The CRASSULÆ *Ciliatæ* may perhaps themselves be a Genus, but I have not recently been able to examine their flowers. They have not the long tube of *Kalosanthes*, and in habit they differ from *Curtogyne*; but I know not the shapes of their germs and styles.

TURGOSEA, supra, *p.* 14. *pertusa.* 1. *

This species has flowered again. Its thyrsiferous scapes are now 9 inches high, each with nearly 40 decussating, gradually lessening upward, erect-incurving, foliaceous bractes: the tenth or eleventh pair of which bear solitary shortly pedicelled flowers in their axillæ; the twelfth and higher pairs from two to six flowers each; with their pedicelli often elevated on a common peduncle one line in length supported by two foliaceous bractes longer rather than the peduncle.—The superior flowers of the graceful, reversely-villose, spike-shaped thyrsus are higher than their main bractes, which gradually lessen to nothing. The bloom (in the day time only) has the sweet fragrance of the Hawthorn's blossom, with something more approaching to the Heliotrope;—the leaves and bractes are often deeply embued with red, enhancing the beauty of the small snowy recurving petals, and reflecting over them, in peculiar lights, a very soft rosaceous shade. The ordinary squamula is rhombically obcordate: the germs are green, pressed to each other and flattened within, but externally gibbous, and nearly the shape of a raisin stone, having very short blunt continuous styles, and without any apparent stigma, even through a common pocket lens.

APICRA. *Willd. et Nob. in Supp. succ.* 61.

β *torulosa;* A. (spongy-flowered pentagonal) foliis subquinquefariis pallide viridibus glabris; subtus obsolete maculatis: perigonii angulis spongiose torulosis. *pentagona.* 1. *

Aloë pentagona. Salm. cat. rais. d'aloë, p. 10.—*Non Nob. &c.*

Floret Octob.

Ex ipso Principe de Salm Dyck accepi A.D. 1821.

Ab omnibus (2 exceptis) mihi cognitis plantis differt charactere rarissimo, in corollarum angulis spongiosè torulosis rugulosisve. Hunc characterem in Apicra imbricata, et Aletride farinosa *Linn.* solum vidi vel audivi. In Apicra pentagona, *Nob. l. c.* (Aloë pentagona. *Bot. magaz.* 1338) perigonium læve est, et A. imbricata ab supra dicta A. pentagona, var. torulosa, in statura &c. longè discrepat.

Obs. Apicra pseudo-rigida *Nob. in Suppl. pl. succ.* 62, vix est hujus Generis, ob habitum fere ut in Haworthia tortuosa, et bilabiatos (a me non visos) flores forte obtinet.

Obs. In Apicra, duæ sectiones exstant, viz. *Erectæ*, foliis erectis valde pungentibus induratis; et *Patulæ*, foliis patulis pungentibus abbreviatis induratissimis.

Obs. *Apicra* aspera, minor, et var. β. duplo major; forte duæ species sunt, ob tuberculorum nervorumque differentiam; at β non possideo, neque (nisi parvam) α, ab Illust. Pr. de Salm Dyck.

ALOË *Linn.* &c.

brevifolia. 1. * A. (lesser, proliferous) subacaulis foliis lanceolatis acutis glaucis: marginibus carinaque apice spinosis vix cartilagineis: subtus subtuberculatis.
Aloë (brevioribus) foliis &c.—Mill. dic. ed. 8.—*Pl. grass.* 81.—*Hort. kew. ed.* 2. *v.* 2. *p.* 294. *Nob. syn. succ.* 80.—*Al. prolifera. Nob. in Linn. tr. v.* 7. 16.—*Al. afric. caul. fol. glauc. breviss. Comm. præl.* 22.

prolifera. 2, * A. (great proliferous) subacaulis: foliis ovato-lanceolatis acutis glaucis: marginibus carinaque

apice remotiuscule spinosis vix cartilagineis: subtus subtuberculatis.

Aloë prolifera β. major. Salm. cat. rais. d'al. p. 23.—*Nob. in Suppl. pl. succ. p.* 44.

Priore foliis duplo majoribus, spinis marginalibus remotiusculis.

Obs. Hæc et præcedens, cum A. *depressa*, necnon A. *serra*, sectionem novam Proliferam efficiunt, radicibus valde soboliferis, floribus anguste thyrso-spicatis, ante aperientiam acutioribus quam aliis, apicibus minus rectis.

GASTERIA. *Duvall. et Nob. in Syn. succ.*

G. *Nob. in Syn. succ.* 87. *carinata.* 1.
Obs. Varietatem habeo a Dom. Hitchin, pulchriorem *pallidiorem*.

G. *supra p.* 46. Habeo plantam ab amico Dom. Aiton, foliis 3-uncialibus, unciam latis, semunciam crassis obtusis sordidè albo magnipunctatis, apicem versus minute serrulatis, cum mucrone conspicuo terminali. *mollis.* 2.

HAWORTHIA. *Duvall.* Aloë *Linn. &c.*

H. *Nob. in Syn. succ.* *granata.* 1.
Apicra granata *Willd.*
Varietatem habeo *polyphyllam*, a Dom. Jos. Hooker foliis duplo numerosioribus, margaritis crebrioribus.

P.S. The following have also occurred since the preceding pages were printed.

Stapelia conspurcata. *Jacq.* (Orbea ?) 1.
normalis. *Jacq.* (Orbea ?) 2.

3. mastodes. *Jacq.* (Duvallia ?)
4. rugosa. *Jacq.* (Podanthes ?)
5. mutabilis. *Jacq.*
6. conspurcata. *Jacq.*

Obs. These Stapeliæ are all in the collection of the author's friend Mr. Hood of South Lambeth, a very zealous though young collector of succulent plants, and who already flowers these difficult plants much better than any one the author knows.

7. * Crassula *conspicua :* (broad, fringed-leaved) foliis decussate capitatis expansis orbiculato-cuneatis canescentibus, pube adpressa brevissima : ciliis validis albis subrespicientibus.

Planta 3-entalis, caule forsan fruticuloso apud Kew, et nuperrime cum sequente e C. B. S.

Folia 3-entalia 2 uncias lata plana carnosa. Crass. Cotyledoni forte affinis.

8. * Crassula *obliqua β. rufo-cincta :* (rufous edged) foliis oppositis obovatis basi uno latere obliquis integerrimis margine lividi-rufo.

Plantæ nunc subtrientales, caulibus forsan fruticulosis, foliis non nitentibus ut in C. obliqua, sed luridioribus. Fortasse propria species.

9. Aloë *tenuifolia. Willd.* (thin-leaved) From the Prince de Salm Dyck ; and also from Mr. Otto, to Chelsea Garden.

10. * Gasteria *denticulata γ :* apud Kew, nuperrime a C. B. S. Duæ incipientes plantæ, foliis nunc ensiformibus acutis integris albo perbelle magnipunctatis biuncialibus. Forsan propria species.

GASTERIA *acinacifolia γ, patula:* foliis breviori- 11.
bus patentioribus, magis albo-maculatis, floribus *
minus elongatis. Apud Kew.

GASTERIA *candicans*, supra *p*. 46. Nunc gerit 12.
apud Kew folium unicum uno latere truncato- *
carinatum; sed bona species.

SEDUM: *Linn. &c.*

S. (Houseleek-like) *supra p*. 32. *Semper-*
OBS. This plant is supposed to be a Canary one. *vivoides.*
At present it resembles a hen and chicken House- 1.
leek, but is scarcely half so large, with shorter *
but probably more dilated and naked leaves, with ciliate edges. It is yet very young. It is probably a Sempervivum, with a diminished number of stamina.

COTYLEDON. *Linn. &c.*

OBS. Cotyledon *coruscans, Nob. in Suppl. succ.* was described from a young plant, which now is less glittering and much larger, with deep-channel-concave recurved retuse but pointed leaves, and with a large panicle of flowers resembling that of C. orbicularis, but larger and paler. The name of sulcata, concava, or recurva, would be far better than that of coruscans for it.

SEMPERVIVUM. *Linn. &c.*

S. (*supra p*. 65) villosum: foliis teneris viridibus *laxum.*
cuneato-rhombeis ovatisve; summis subcordatis 1.
longitudine petiolorum. *

HABITAT in Canariis. G. H. ♄.

OBS. S. villoso affine, at majus. *Caulis* (in planta seminali) 6-uncialis, erectus, simplex, purpurascens.

The author avails himself of the present opportunity of giving full descriptions of two species of *Ganymedes,* which were imperfectly announced in his *Suppl. pl. succ.* 134, and have hitherto been confounded under the name of triandrus. Mr. Williams, of the Nursery at Turnham Green, obligingly communicated living specimens of both on March 28th, 1820, from one of his greenhouse pits. They may be described as follows, and now form a section in the genus, viz.—

* Corollæ laciniis Cyclaminum modo magis reflexis; spathis bifloris; foliis valde canaliculatis.

ochroleucus. 1. G. (the pale drooping) corollæ laciniis planis ochroleucis oris albis, coronâ ochroleucâ sesquilongioribus: scapo teretiusculo.

Narcissus triandrus. Bot. mag. 48.—*N. cernuus. Salisb. prod.* 223.—*N. Juncifolius calyce luteo, reflexis foliis albis. Park. parad. t.* 93. *f.* 3.—*Ganymedes cernuus in Hort. trans.* 1. 352.—*Nob. in Suppl. succ. pl.* 130.

OBS. *Corollæ* laciniæ lanceolato-oblongæ, basi parum imbricantes, Cyclaminum more exactè reflexæ. *Scapus* gracilis teretiusculus pallide virens.

albus. 2. * G. (the twisted petalled) corollæ albæ laciniis tortis coronâ duplo longioribus; scapo compresso.

N. triandrus. Linn. sp. pl. ed. 2. *p.* 416.— *N. Juncifolius, flore albo reflexus. Park. par. t.* 93. *f.* 2. — *Ganymedes triandrus. Nob. in Suppl. succ. pl.* 130.

Obs. Scapus obtusè compressus subsolidus saturatè viridior priore 2-3-plo crassior. *Corollæ* laciniæ valde tortæ, basi parum imbricantes, longiores sed angustiores quam in priore, Cyclaminum modo minus reflexæ magisque tortim effusæ ; exteriores costâ ochroleucâ, plus duplo longiores quam coronâ et a tubo aliquo reflexim progredientes. *Filamenta* interiora tubo longè breviora,, et usque ad antheras ipsas eo adnata ut in priore. *Stylus* magis exertus et tota planta major quam in priore, foliis fere sesquilongioribus plusve, duplo latioribus saturatioribus magisque effusis ; forte cum illo proprium genus.

** Corollæ laciniis minus reflexis : spathis 1-7-floris. Huc referenda cætera.

FINIS.

Typis R. et A. Taylor,
Shoe-Lane.

ERRATA.

Page 17. l. 4, for Micranthidis, read Micranthis.
84 — 3, — *urbiniforme* —— *turbiniforme*.
——17, — viget —— vigebat.
p. 133, — *deltoide* —— *deltoides*.

And for Aloides and Aloidea, (passim) read Aloöides and Alooidea.